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ABSTRACT

This evaluation report describes the instructional support services provided by the Gifted and Talented (G/T) Education Program of the Des Moines (Iowa) Independent Community School District. The report evaluates the program's context, input, process, and product and considers future planning. The state-mandated program provides services through differentiated instruction, curriculum replacement, acceleration, course compacting, special programs, mentors, pull-outs, community resources, and summer and Saturday programs. One component of the program is the Central Academy, a half-day program designed to facilitate high academic needs for students in grades 8 through 12. The program budget is funded through the Instructional Support Levy based upon the state allowable growth funding formula. Implementation of the G/T program involves identification of students needing support services, facilitating appropriate curriculum and services to support these students, and continual monitoring and review of student needs. The G/T program serves over 4,000 students, 13 percent of the population in the Des Moines Public Schools. The number of Advanced Placement exams taken by Des Moines juniors and seniors currently exceeds the national average. Appendices contain materials describing the program in more detail. (Author/JDD)

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PROGRAM EVALUATION

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GIFTED AND TALENTED EDUCATION

Grades K-12

Des Moines Independent Community School District
Des Moines, Iowa 50309-3399

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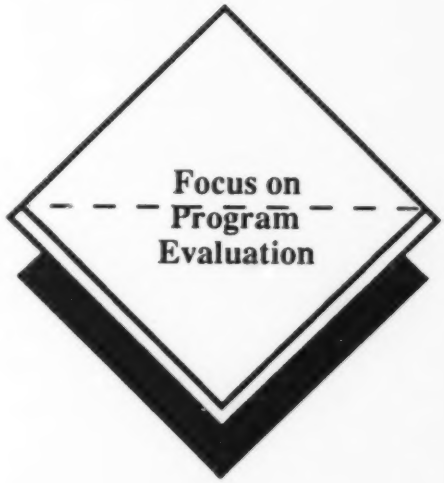

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GIFTED AND TALENTED EDUCATION
K-12

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April 1993

EVALUATION ABSTRACT
GIFTED/TALENTED EDUCATION
APRIL 1993

Context Evaluation

Gifted and Talented Education Programs, as instructional support services, are offered in forty-two elementary buildings, ten middle schools, five traditional high schools, four alternative schools, and Central Campus. This state mandated program provides services to those students who are exceptional in one or more of the five areas of giftedness as defined by the Iowa Department of Education: Intellectual, Specific Ability Aptitude, Creative/Productive Thinking, Leadership, or Visual and Performing Arts. Program options include differentiated instruction, curriculum replacement, acceleration, course compacting, special programs, mentors, pull-outs, community resources, competitions, summer and Saturday programs, plus Central Academy, a half-day program designed specifically to facilitate high academic needs, grades 8 through 12, in math, science, social studies, and language arts. The Gifted and Talented Education Program exceeds all state requirements and is considered an exemplary program in the mid-west and the nation.

Input Evaluation

The Gifted and Talented Education budget is currently funded through the Instructional Support Levy based upon the state allowable growth funding formula. Beginning with the 1993-94 budget, the modified allowable growth plan will once again become a source for funding. Student fees account for approximately 2.5% of the $1.3 million budget. This total amount is less than 1% of the district operating budget.

Process Evaluation

The process of implementing the G/T program includes (1) identification of students requiring support services, (2) facilitating appropriate curriculum and services to support these students, (3) continual monitoring and review of student needs. Imperative to this effort is the instruction and training for district staff and parents, the constant need for advocacy for these students, the careful monitoring of the G/T budget, the development of new and creative options to provide for student and staff needs, and support for G/T staff and district administrators in facilitating student needs.

Product Evaluation

As a direct result of Gifted and Talented Education programs, Des Moines Public School students have achieved exit level academic skills which are among the best in the nation. The number of Advanced Placement exams taken has increased from 38 in 1988 to over 400 in 1993. Although Iowa ranks 47th of 50 states in the nation in AP exams (31 per 1000 students), Des Moines students, primarily through the student support provided by G/T, averaged over 112 AP exams per 1000 enrolled juniors and seniors in 1993 (above the national average of 98 per 1000). The G/T program currently serves over 4000 students (13%) of the population in the Des Moines Public Schools. Significant increases in numbers of students working at advanced levels have been recorded in the past three years.

Future Planning

Gifted and Talented Education continually looks for new and creative ways to meet the needs of exceptional children. Formalized acceleration programs, similar to the current one in mathematics, will be incorporated into the G/T programming in science, social science, and reading. Additional levels of curriculum will be added to the top levels of current offerings. Greater articulation and programming through area post-secondary institutions will take place and continued growth of Central Academy will provide appropriate challenging educational opportunities for exceptional young scholars.

A copy of the complete report is available upon request from the Department of Information Management, Des Moines Independent Community School District, 1800 Grand Avenue, Des Moines, Iowa 50309-3399. Telephone: 515/242-7839. All evaluation reports are submitted to the Educational Resources Information Center (ERIC) and Education Research Service (ERS).

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DISTRICT MISSION STATEMENT

"The Des Moines Independent Community School District will provide a quality educational program to a diverse community of students where all are expected to learn."

GIFTED/TALENTED MISSION STATEMENT

"The mission of the Gifted/Talented program is to identify and serve those students who are exceptional in one or more of the five areas of giftedness, as defined by the Iowa Department of Education:

Intellectual
Specific Ability Aptitude
Creative/Productive Thinking
Leadership
Visual and Performing Arts

The needs of these students will be met through a differentiated curriculum that provides enhanced learning opportunities. These opportunities will be offered in a total school environment that integrates the cognitive, emotional, and social development of students identified for the program."

CONTEXT EVALUATION

History

Can the needs of gifted/talented students be met through traditional programming in the regular classroom? Thirty-eight years ago a parent, Paula Brown, believed the answer was "No!" At her insistence, along with that of other parents, the superintendent of the Des Moines Public Schools established a study committee to examine this issue. Since the education of the gifted was to be classed as a special education area, it operated under the Central Committee on Special Education, a responsibility of the Department of Pupil Adjustment. Letters were sent to each of the (then) forty-eight state departments of education requesting information about programs being conducted in the area of the gifted. Follow-up letters were sent to superintendents and curriculum directors of city school systems mentioned by those who answered the first request.

In 1956 a regular teacher was released from classroom duties for one school year to serve as resource consultant for the research study of the education of the gifted in the Des Moines Schools. Various methods of program delivery were piloted in selected elementary schools. In one third grade classroom, students were selected on the basis of test record cards and teacher judgment to be cluster grouped for instruction. At the secondary level special groups were organized in mathematics, history, English, chemistry, creative writing, and Spanish.

As the program evolved, certain elementary schools were selected to house special classes for the "academically talented" as the program was then called. Students came from across the district to attend on a full-time basis. At these sites gifted students spent one-half day with the teacher of the gifted who delivered instruction in Social Studies, Science, and Language Arts. They stayed with their gifted peers for the remainder of the day to attend classes in math, music, and physical education taught by the regular building teacher. Much of the instruction at that time was by television. The teachers of the gifted were quite free to adapt the district curriculum and enrich it to meet the needs of their students. It included much creative expression in areas of writing, music composition, and art. Social service was a strong component both within the building and as an outreach to the community. Many resource speakers came to the classes and students took field trips into the community. At the secondary level tracking was used to channel the academically talented students to appropriate classes. In 1972-73 the separate classes for elementary gifted students were abolished.

One national survey (the Marland Report, 1972) revealed that 57.5% of administrators in the United State schools believed that they had *no* gifted pupils. This same survey further showed that even when they were recognized as gifted, one-third of these students were given no special instruction. The remaining two-thirds largely received only token assistance.

Des Moines became a leader nationally in visions for programming for gifted/talented students. By 1976 one full time staff person was hired to coordinate the gifted/talented program. There was no secretarial help and the budget was $1000. Grants were written and funding for programs such as Project Nifty, were received from the Federal government through applications made with the Department of Public Instruction, and through private sources such as the Northwest Area Foundation.

During the 1976-77 school year a Gifted and Multi-Talented Advisory Council, comprised of parents, educators, and community persons was established to represent the community in planning and communicating programs and needs of gifted and talented students to both the school administration and the community. This group, chaired by a community person, continues to meet the first Monday of each month.

In 1982-83 a Saturday Math/Science Institute was established to provide advanced level instruction for secondary students. From this concept, the Central Academy was established in 1985-86. This half-day program provides challenging, fast-paced, academic curriculum for students with exceptional abilities in grades 8 through 12. An emphasis on Advanced Placement classes allows students to graduate having earned hours of college credit.

Recognizing the need for funds to support education of the gifted, the Iowa Legislature, in 1983, passed an enabling provision, Modified Allowable Growth Funding, in which districts could fund gifted/talented programs with local property tax money without voter approval. This formula, district cost per pupil times district budget enrollment times 1.2%, stipulated that 75% would be new money and 25% would come from district funds. A district approved plan has to be submitted yearly by November 1 to the Department of Education and approved according to the guidelines established by law. Des Moines used this funding plan from 1983 until 1991, when money from the Instructional Support Levy began supporting the program. Plans are to return to partial funding from allowable growth with the 1993-94 school year.

The Minimum Iowa School Accreditation Standard mandated that by July 1, 1992, all accredited school districts must have a Kindergarten through 12th grade gifted/talented program. With the encouragement of parents over the years and support of district administration, the Des Moines district had in place a commendable program. Gifted/talented education is now staffed by a supervisor, a secretary, ten consultants, and a counselor. The $1.3 million budget (.8% of the district budget) also provides partial support to Central Academy teachers, and a stipend in each of 59 schools to the teacher designated as the Gifted/Talented Building Coordinator. This staff provides identification and a wide range of programming options, both enrichment and acceleration, for gifted/talented students in the Des Moines Public Schools.

Standards, Policies, and Regulations

State Legislation and Standards

The Iowa School Accreditation Standard stated below indicates that school districts must have in place by the start of the 1991-92 school year a program for gifted and talented students.

> 4.5(12) **Provisions for gifted and talented students.** The board shall have a program to meet the needs of gifted and talented students. The program shall include valid and systematic procedures, employing multiple criteria, for identifying gifted and talented students including ethnic and language diverse students if such students are enrolled; provisions for curricular programming to meet the needs of identified gifted and talented students; support services, including materials and staff, to ensure that a qualitatively differentiated program is provided; and a procedure for annual review and evaluation for the purpose of program improvement.

Two other accreditation standards affecting gifted and talented students relate to the awarding of credit by examination and standards for graduation.

> 4.5(19) **Credit**. A student shall receive a credit or a partial credit upon successful completion of a course which meets one of the criteria in subrule 4.5(17). The board may award credit on a performance basis through the administration of an examination, provided the examination covers the content ordinarily included in the regular course.

> 4.3(7) **Standards for graduation.** Each board providing a program through grade twelve shall adopt a policy establishing the requirements students must meet for high

school graduation. This policy shall make provision for early graduation and shall be consistent with these standards and the Iowa Code.

The **Postsecondary Enrollment Options Act** implemented in 1989 allows those students who qualify to take eligible courses at an Iowa postsecondary school, such as an area college, or a four-year college, and have the cost of tuition, fees, and books up to $250 paid by their home school district. Credit earned in the courses must be counted at the home school as well as at the postsecondary institution. An "eligible course" is a non-sectarian course that is not comparable to a course taught in the high school the student attends.

In 1992, House File 2247 amended the Postsecondary Enrollment Options Act to make eligible, in addition to 11th and 12th grade students, 9th and 10th grade students who have been identified as gifted according to their school's identification procedure. Previously the Act was open only to those students not taking a full schedule of high school classes, that is, a student who had at least one study hall. Now a student may take a full schedule of high school courses and still participate in the postsecondary enrollment privilege.

The Iowa Administrative Code 282 14.20(13) details the rules for the new **Talented and Gifted Teacher/Coordinator Endorsement.**

a. Authorization. The holder of this endorsement is authorized to serve as a teacher or a coordinator of programs for the gifted and talented from the prekindergarten level through grade twelve. This authorization does not permit general classroom teaching at any level except that level or area for which the holder is eligible or holds the specific endorsement.
b. Program requirements--content. Completion of 12 graduate semester hours of course work in the area of the gifted and talented to include the following:

(1) Psychology of the gifted
(2) Programming for the gifted
(3) Administration and supervision of gifted programs
(4) Practicum experience in gifted programs.

Note: Teachers in specific subject areas will not be required to hold this endorsement if they teach gifted students in their respective endorsement areas.

On October 15, 1992, the Legislative Rules Review Committee declared the new endorsement officially in effect. It will be required of anyone who is initially licensed to teach after 1995, if he/she wishes to be a teacher or coordinator of a gifted program at any grade level. Persons with credits from out-of-state institutions may now request a review of their transcripts by the Bureau of Practitioner Preparation and Licensure to see if they meet the qualifications for the endorsement. Those with credits from Iowa institutions need to apply for the endorsement through a college or university that has a Department of Education approved preparation program for the endorsement.

Current Program Description

How The Program Functions

The Des Moines Independent Community School District is committed to providing a quality educational program where *all* are expected to learn. For those students who are identified as possessing demonstrated or potential abilities beyond those of the traditional school population, the Gifted/Talented program is dedicated to providing support services to facilitate meeting their unique intellectual and social-emotional needs.

A. Identification

Teachers, consultants, support staff, parents, or peers may suggest students who might be considered for the gifted/talented program. Multiple criteria, that is standardized tests (achievement, creativity, and intelligence), rating scales, authentic assessment such as product evaluation and portfolio assessment, personal interviews, behavioral checklists, and teacher observations, are used to screen students to ensure that ethnic and language diverse students are identified in the program. Currently 12.9% of those identified are minority students. Building teams, comprised of the Gifted/Talented Building Coordinator, the principal, and teachers and support staff representing various grade levels and curricular areas, make placement decisions based on student ability and need. Some students are identified for direct services from the program, others for the talent pool (a somewhat larger group of students with exceptional abilities but with less need for curricular differentiation), and some may not need placement. The level of service is based upon the degree of need for curricular modification and the identification category.

B. Program Placement

Approximately three percent of each building's population may be identified for direct services. These may include:

1. Development of an individual written plan.
2. Curriculum differentiation provided by classroom teachers.
3. Placement of students in special classes, out-of-grade level content area, independent study, cluster grouping (students with similar abilities grouped together), Advanced Placement classes, seminars, mentorships, off-campus opportunities, or appropriate co-curricular or extra-curricular enrichment activities.
4. Special programs
   A. Qualified students in grades 8 to 12 may elect to attend Central Academy, a half-day academically accelerated program.
   B. G/T resource room with full time teacher at Edmunds Fine Arts Academy, (students enrolling by voluntary transfer receive bus transportation.)
   C. Three week half-day elementary pull out classes
   D. Summer School, grades K-9
   E. G/T middle school summer camp
   F. Before and after school classes
   G. Special events and competitions
   H. Saturday Institute for Science and Humanities
   I. Middle school retreats
   J. Parent-child workshops
   K. Special community opportunities.

Some students will be placed in a talent pool rather than the direct service group. For these students the academic curriculum needs less differentiation to meet their needs. Many self-select options are available for these students. In addition, classroom teachers are made aware of student potential and provide differentiation as needed.

Number of Students Identified for Services, March 1993

	3% or Direct Service Group	Talent Pool
Elementary	406	918
Middle School	289	1030
High School	330	1081
Total	**1025**	**3029**
Total Number of G/T Students Identified for Services:		**4054**

Elementary Services

The five elementary gifted/talented consultants, each of whom serves either eight or nine schools, work cooperatively with the building staff, particularly the G/T building coordinator, to identify students for services, assist in developing individual written plans, provide guidance and materials for appropriate curriculum placement, assist in implementing differentiated assignments, arrange for special enrichment activities, and plan and deliver appropriate in-service.

Based on the student's needs, services might include one or more of the following: in-class differentiation, compacting the curriculum, cluster grouping for instruction, content or whole grade acceleration, pre- and post-testing to determine appropriate student placement, independent study, weekly building G/T pull-out class, district-wide three week half-day pullout, individual or small group guidance, mentor, organized group activities such as Odyssey of the Mind, Knowledge Master, Invention Convention, Continental Math, Math Olympiad, Artifact Box, Quiz Bowl, Omnibus classes, Books for Brotherhood, Take Pride in Des Moines Contest, Martin Luther King Day, Junior Great Books, Future Problem Solving, Night of the Notables, G/T summer school; enrichment activities based on student interest and need either during or outside the school day, including student field trips and resource persons coming to the school. Examples would be creative writing, art, cartooning, drama, public speaking, creative dance, story telling, sign language, environmental awareness, global studies (foreign language), architecture, family history, music/opera, geography, and various science areas.

Middle School Services

Two middle school gifted/talented consultants assist in providing services to five buildings each, plus support on request to the two alternative secondary schools and Orchard Place. Identification and review of students placed in the program is on-going. Delivery of services is similar to that of the elementary school in the areas of curriculum differentiation, that is compacting the curriculum, cluster grouping for instruction, content or whole grade acceleration, pre- and post-testing to determine student placement, independent study, and an emphasis on higher order thinking skills. Middle schools may participate in Knowledge Master, Math Counts, Geography Bowl, Odyssey of the Mind, Night of the Notables, Invention Convention, and Mock Trial. They too use community resources both during and after the school day to provide special offerings to students, both on an individual and group basis.

A unique delivery service at the middle school is a compacted class in a curricular area for gifted/talented students who have special strengths in that content area. The instructor "compacts" the regular curriculum into four days and uses the fifth to develop skills, attitudes, and abilities necessary for students to become life-long learners. Much of the fifth day instruction is based on the Autonomous Learner Model by George Betts, and in some cases the classroom teacher is assisted in this instruction by the G/T consultant. This class regularly employs higher order thinking skills, understanding one's strengths and weaknesses including learning styles as developed by Kathleen Butler, learning process skills for individual development (creativity and problem solving based on models by Bob Stanish), participating in enrichment activities in the community, developing seminars, and in-depth studies.

These compacted classes are offered for several grade levels in math, science, and social studies. The content area is determined by student need and the availability of a teacher with training and understanding of the needs of the gifted along with a willingness to teach the content area using this approach. In several buildings students with exceptional ability in art are grouped together for their regularly scheduled art class. Another delivery service used is a two or three day per week

class for gifted students which alternates with physical education. Gifted students are grouped together in a TA (Teacher Advisor) group in one building.

At the middle school two activities from the Autonomous Learner Model by George Betts are used as a delivery method. A weekend retreat is held at Camp Wesley Woods. Leadership and group building skills are developed as students are responsible for planning, organizing and directing activities. A one-day Community Search is also held in the city of Des Moines. Students develop life-long skills in the use of maps, bus schedules, the yellow pages of the phone book, and how to present themselves to community persons, in addition to the information gained from exploring the workings of various community establishments.

The gifted/talented program provides middle school students opportunities for in-depth study in topics outside the regular curriculum through the three week summer school in June, the Saturday Math/Science and Humanities Institute which meets Saturday mornings during January and February, and the Gifted/Talented Summer Camp, now in its twelfth year at the 4-H Camping Center near Madrid.

High School Services

Needs assessments and student surveys are an important part of determining services to high school gifted/talented students. The high school consultant supports the building staff in each of the five comprehensive high schools and the two alternative high schools to ensure appropriate student identification and placement in the program and then to deliver services which meet those students' needs.

Options for high school students include placement in high level or Advanced Placement classes; taking an elective class based on the Autonomous Learner Model, entitled "Enriched Learning Opportunity;" working with a classroom teacher on a special project or independent study; participating in group seminars, or lunch time discussion groups; shadowing professionals; enrolling in classes in the community such as the Art Center or the Playhouse; attending workshops, conferences, or cultural events; visiting selective colleges; taking college classes while in high school; entering competitions in such areas as computer programming, math, music, drama, oratorical, history, writing, photography, media, or debate; and participating in structured programs such as Academic Decathlon, Citizen Bee, Future problem Solving, Knowledge Master, Mock Trial, or Odyssey of the Mind.

During December, January, and February 1992-93, the Metropolitan Area Academic Conference was initiated. The conference was formed to promote academic excellence through a competitive format, provide recognition and identity for schools as academic centers, and provide competition for local teams before the regional, state, and national Academic Decathlon competition. The Metro Net Interactive Television System simultaneously linked students from East, Lincoln, Hoover, North, Roosevelt, and Urbandale in paired high level academic competition matching the athletic conference competition held the same week.

Central Academy

Students in grades eight through twelve, who qualify, may elect to attend Central Campus, the half-day academically accelerated program at Central Campus. Students are encouraged to begin in eighth grade and follow the articulated program through grade twelve. Students who are self-motivated with strong organizational skills and who score at the 99th percentile in math or reading, or have a 98th or 99th percentile composite score on the 6th or 7th grade Iowa Tests of Basic Skills, (or attain similar scores on the selected administration to first semester 7th graders of the Comprehensive Test of Basic Skills Survey), or who are identified in the direct service group for the Gifted/Talented Program are invited to participate in the Academy.

The goals of Central Academy are:

1. To develop the skill, motivation, and responsibility to pursue high academic achievement in the student's area of giftedness.
2. To apply theoretical knowledge to practical and experimental situations.
3. To better prepare G/T students to meet the demands of tomorrow's society and contribute to the world of the future.
4. To offer a rigorous academic curriculum culminating with Advanced Placement classes for which college credit can be awarded.
5. To provide an environment where a gifted student would be encouraged to reach his or her full potential.

All students at the Academy take English, and in addition select two of the following three subject areas: mathematics, social studies, or science. Their remaining subjects and extra-curricular activities are at the home school in which they are enrolled. Classes at the academy contain rigorous content and are compacted based on a vertical acceleration model of gifted education leading to Advanced Placement classes and additional college level classes.

Central Academy Course Offerings – January 1993 Enrollments (See Appendix A for course offerings by grade.)

CA English 8 – 116
CA Algebra – 60
CA Geometry/Algebra II – 36
CA U.S. Government/State Government (12th grade content taught in 8th grade) – 67
CA Accelerated Earth Science – 88
CA English 9 (Composition/Speech) – 105
CA Geometry – 32
CA Algebra II – 25
CA Algebra II/Trigonometry – 28
CA Early Civilization/Humanities – 55
CA Introduction to Chemistry and Physics – 50
CA English 10 (American Literature) – 82
CA AP European History – 38
CA AP Biology – 25
CA AP English (Language and Composition) – 41
CA Trigonometry/PreCalculus – 15
CA AP U.S. History – 36
CA AP Chemistry – 42
CA AP English (Literature and Composition) – 52
CA AP Calculus AB – 37
CA AP Calculus BC – 13
CA AP Physics – 10
CA AP Comparative Government/AP Economics – 29
Drake University (Graph Theory Research or Multivariable Calculus) – 5

In addition to meeting academic needs, the Academy addresses the social-emotional needs of gifted youth. In this community of scholars, students find true academic peers thus eliminating the social isolation which can occur when their learning styles and abilities are different from peers in less challenging classes. This feeling of differentness and isolation, if unaddressed, can lead to school dropouts or suicides. A deliberate effort is made to promote a feeling of belonging and acceptance. Two Academy activities designed for this purpose include an educational/social trip planned during the weekend of Drake Relays, when school is not in session for secondary students, to

Minneapolis, St. Louis, or Chicago. Students visit science, art, or historical museums; attend a play, concert, or opera; visit a zoo, botanical garden, or historical site; and make a college visitation. On the last day of first semester when no classes are in session for them, students have the opportunity to take a one day ski trip to Mankato, Minnesota.

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1992-93 Academy Enrollment by School and Grade

	8th	9th	10th	11th	12th	
Brody	11					
Callanan	19					
Goodrell	7					
Harding	11					
Hiatt	5					
Hoyt	3					
McCombs	7					
Meredith	26					
Merrill	15					
Weeks	9					
Johnston, IA	1					
Van Meter, IA	4					
East		6	10	5	6	
Hoover		15	19	12	10	
Lincoln		24	25	18	14	
North		19	8	4	2	
Roosevelt*		39	23	16	23	
Johnston, IA		1				
Urbandale, IA		2		1		
West Des Moines, IA					1	
TOTAL	**118**	**106**	**85**	**56**	**56**	
TOTAL 1992-93 ACADEMY ENROLLMENT:						**421**

*Two students from Roosevelt who attend the Academy reside in West Des Moines but are considered Des Moines Public School students through open enrollment.

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Other Programming Components

One of the support services for gifted/talented students in the district is the Gifted/Talented Counselor. The counselor works with individuals and small groups in providing guidance for students in their course work, college planning, and career decisions, and in their social-emotional development. The primary responsibility is for students at the Central Academy; however, services are available on a limited basis to other gifted/talented students in the district on a referral basis. This individual also interacts with G/T consultants, classroom teachers, building counselors, and parents regarding the welfare of gifted students. Students in crisis, underachieving gifted, and minority gifted are special areas of emphasis along with coordinating orientation, testing, and adjustment of students attending Central Campus. Conducting in-service for staff members and informational meetings for parents is an important part of the role.

The use of community resources is another important component of the gifted/talented program. The consultant who arranges for community experiences accepts requests from administration,

building staffs, consultants, parents, or students. Based on student interests, personalities, and needs either one-time or continuing experiences are arranged for individuals or groups. Some of these occur during the school day in their home school; others at a community site. After school, Saturday, evening, and summer programs are arranged to enrich the learning experiences. For some students with academic or emotional needs that are not being met in the classroom, a mentor is arranged to come to the school one or two days a week.

Structure

The Supervisor, Gifted/Talented Education, is directly responsible for the program and reports to the director of Central Campus. The supervisor has a working relationship with the Assistant Superintendent, Teaching and Learning; the Executive Director, Elementary and Early Childhood Programs; the Executive Director, Middle and High School Programs; building principals, and each of the Teaching and Learning Instructional Services Supervisors.

Five elementary consultants, two middle school consultants, one high school consultant, the G/T counselor, the community resource consultant, the academy consultant, and one secretary report directly to the supervisor. Fifty-nine teacher-G/T building coordinators and thirteen academy staff are indirectly responsible to the supervisor. (See Appendix B).

Past Needs Resulting in Program Improvement

An informal needs assessment indicated that there were elementary students consistently scoring at the highest levels of achievement in mathematics and not being challenged in the regular elementary classroom. As students at Central Academy were successfully completing advanced level math courses, the program staff became aware of other high ability math students who could successfully move ahead in the math curriculum if given the opportunity.

There is now in place a formalized accelerated mathematics program carried out according to the following steps:

1. Elementary students who score at the 97th to 99th percentile in mathematics on an Iowa Test of Basic Skills test, are given the next grade "end of the year" mathematics test from the teacher's manual. (If no ITBS score is available, students are given the end of the year test based on a strong recommendation.)

2. If the student scores 90% or above on the next grade end of the year test, the gifted/talented program staff in consultation with the Supervisor of Mathematics, reviews the results for possible math acceleration (working in a higher grade-level mathematics program).

3. If the student scores in the range of 75 to 90% on the end of the year test, it is recommended that the classroom teacher administer either the multiple choice or the free response test as a pre-test for each chapter.

4. When the pre-test score is 95% accurate or better, it is recommended that alternative enrichment math assignments be given during the regular math time.

For fifth graders the mathematics acceleration plan is as follows:

1. A pool of potentially qualified fifth graders is selected by those meeting the following requirements:
   a. Evidence of independent self-directed learning
   b. Math composite percentile of 98 or 99 on the ITBS national norms OR

c. ITBS Math Problem Solving or Concepts at the 99th percentile OR
d. Teacher recommendation
It should be noted that teacher recommendations without appropriate test scores must include strong evidence of very superior math ability. Recommendations are reviewed by the G/T Department with final approval by the Supervisor of Mathematics. Radical acceleration is normally considered only for those students two standard deviations or more above the norm in mathematical ability, approximately 1.4% of the general population.

2. Parents are notified their child has been screened and are invited to a meeting in which the program is explained. With parental permission, students take the 6th grade district objective based math test as a final screening for acceptance to the program.

3. Students demonstrating mastery of 6th grade math objectives are accepted for acceleration course work. At the end of 5th grade these students are invited to participate in a three week half day math program coinciding with the G/T summer school in June. The instruction will cover math concepts not mastered as indicated by the 6th grade test and also the 7th and 8th grade math concepts and problem solving strategies. (If students are unable to participate in the summer school program, they can receive the materials and pursue self-directed/parent assisted or other independent study options to master the district objectives. The 7th grade objective based math exam can be administered to them in August. Completion with 90% proficiency qualifies the student to take pre-algebra in 6th grade.)

4. Based on testing at the end of the three week program students are recommended for one of the following:
   a. Pre-algebra in 6th grade (Thus algebra in 7th, and in 8th grade the accelerated math program at Central Academy.)
   b. Advanced 7th grade math program
   c. Traditional 7th grade math program
   d. Traditional 6th grade math program.

Program Goals

The goals of the Gifted and Talented program are:

1. To provide, in all curricular areas, instructional support which will enable each gifted child to develop his/her abilities to the fullest.
2. To create a climate that nurtures and motivates gifted children to become autonomous life-long learners.
3. To employ valid and systematic procedures using multiple criteria to identify students of various ethnic and cultural backgrounds for gifted/talented services.
4. To coordinate and articulate appropriate program services for the gifted student throughout the entire public school experience.
5. To provide appropriate learning opportunities to meet individual abilities, interests, and needs.
6. To provide guidance, support, and in-service training for district personnel in identifying and meeting academic and social-emotional needs of gifted/talented students.
7. To work cooperatively with educators, parents, and community persons in advocating for gifted/talented students and communicating appropriate ways in which to meet their needs.
8. To evaluate the program systematically for the purpose of program improvement.

Other Program Support

The gifted/talented program operates within the context of an exceptionally competent and qualified consultant staff, and overwhelming *parent and community support.* Informational meetings are held each year both regionally within the district, and in individual buildings to involve parents in their child's gifted education program. Nationally recognized speakers are invited to speak to district parents regarding their gifted children. Dr. Colangelo, National Center for the Gifted and Talented at the University of Iowa, spoke to 85 parents in the fall of 1991. At the middle school, parent/child Creativity Fun Nights have been held. Parent/child workshops are offered several times a year for elementary students and their parents. Informational meetings are held each year to inform students and parents about the Central Academy curriculum. At the high school level, parent information meetings have been held and also parent/student seminars to assist in selecting and being admitted to the college of their choice. Since 1985, a G/T consultant has facilitated twenty-seven ten-week series of guided discussion groups to assist parents in dealing with the social-emotional needs of gifted children.

The Des Moines Talented and Gifted Association is an active group of parents and other community persons interested in developing the potential of gifted/talented students. They meet the third Thursday of each month, have informative programs, have an executive committee, give financial assistance to students wishing to participate in special programs, and publish an outstanding monthly newsletter.

A Gifted/Talented Advisory Council was established in 1976 to bring together educators, parents, and community persons to make recommendations regarding ways to meet the needs of gifted/talented students. This group continues to meet regularly on the first Monday of each month. (See Appendix C for a listing of members.)

INPUT EVALUATION

Gifted/Talented Education Budget and Sources for Revenue

Money to support the gifted/talented program comes from the following sources:

1. District gifted/talented budget
2. Student fees for special programs

Gifted/Talented Program Budget

G/T Budget Formula
Cost Per Pupil: $3,404 x Budget Enrollment: 30,998 x State Formula:
.012 = Total G/T Budget for 1992-93: **$1,266,206**

	1992-93	1991-92
I. **Salaries**		
A. Supervisor	48,250	45,332
B. 11 Consultants	414,288	394,560
1 high school, 2 middle school		
1 academy, 5 elementary		
1 community resource		
1 counselor		
C. 7 Central Academy teachers	254,404	242,290
1 social science, 2 science		
2 English, 2 math		
D. Office clerical	16,413	15,632
E. Substitute teachers	2,450	1,980
F. 60 G/T building coordinators	39,057	35,625
G. Employee benefits	205,339	194,886
Subtotals	**980,201**	**930,305**
II. **Materials & Supplies**		
A. Materials K-12	15,500	15,000
B. Mentor programs	1,000	1,000
C. Math, Science Institute	1,500	1,500
D. K-12 printing	9,000	9,000
E. MCNS materials	1,000	1,000
F. Global Studies	550	500
G. Instructional - building	4,500	4,500
H. Academy supplies	1,200	1,000
I. Art, music identification	500	500
Subtotals	**34,750**	**34,000**
III. **Purchased Services**		
A. In-district travel	6,200	6,000
B. Pro/Technical service	5,000	5,000
C. Student tuition	2,000	1,200

	1992-93	1991-92
D. In-service In-service workshop for G/T building coordinators; Participation in ITAG and national/ regional conferences	15,500	14,713
E. Transportation for students	6,500	6,500
Subtotals	**35,200**	**33,413**
IV. **Capital Outlay/Equipment**	2,000	0
Subtotals	**2,000**	**0**
V. **Indirect Cost**	99,355	95,421
Subtotals	**99,355**	**95,421**
VI. **Direct Services To Students**		
A. Mentorships in visual & performing arts	5,000	5,000
B. Special Events	15,900	27,500
C. Decentralized funds - High Schools	22,500	22,500
D. Decentralized funds-Middle/Elem Schools	28,400	0
E. Summer Program	22,000	21,000
F. Saturday Math/Science and Humanities Institute	15,000	15,000
G. Minority program	1,250	1,000
H. Partial funding G/T Summer Outdoor Camp	2,400	2,000
I. Leadership Training Program	2,250	2,000
Subtotals	**114,700**	**96,000**
GRAND TOTAL	**1,266,206**	**1,189,139**

Other Income Sources: Student Fees for Special Programs

Lab Fees Collected From Central Academy Students	$875
Special Program Materials Fees:	
Summer School	$17,500
Summer Camp	6,250
Middle School Retreats	2,210
Global Studies Classes	900
Saturday Institute	800
Parenting Classes	800
Classes in Drama, Dance, Art, Cartooning, Writing, Public Speaking, Science, etc.	2,000
	$30,500
Total Fees Collected	**$31,375**

Expenditures

During the 1991-92 school year budgeted funds were expended leaving a balance as of June 30, 1992, of $5.63.

Decentralized Funds

Beginning with the 1992-93 school year a plan for decentralized funding of local school gifted programs was made available to the elementary and middle schools in addition to the high school where it was already in place. The guidelines indicate that decentralized G/T funds will be used to support the needs of identified gifted/talented students within each building. Decisions for use of these funds will be made by the building G/T team with review and approval from the building principal. The building G/T coordinator will complete the Decentralized Funds Usage Report and forward it to the Supervisor of Gifted and Talented Education at the end of each semester.

Included in the printed guidelines are statements that activities funded should address the particular needs of gifted and talented students. Activities funded should clearly represent some form of differentiated curriculum or activity. They should not include standard curriculum or activities and should be ones that would not occur without the financial assistance of gifted/talented education. When appropriate, individuals should bear some of the cost of special programs to assure a commitment. When expenses include material costs and the final product will be kept by the student, only a portion of the expenses, consistent with the learning experience, should come from G/T decentralized funds. Each activity will be evaluated by the students involved or by the G/T coordinator of G/T team.

Allotted funds are calculated on a base amount: $3000.00 for each comprehensive high school; $500 for each middle school; and $300.00 for each elementary school, plus a pro-rated amount based on student enrollment. The total for each high school ranges from $4000 to $5000; middle schools from $750.00 to $920.00; elementary schools from $400 to $575. (See Appendix D for specific dollar amounts.)

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Human Resources Cost 1992-93

Staff Position	Number of Staff	Total Salary	Average Salary
Consultants			
Elementary	5	$191,710	$38,342
Middle School	2	78,280	39,140
High School	1	37,145	37,145
Academy	1	37,240	37,240
Community Resource	1	37,145	37,145
Counselor	1	39,140	39,140
		$420,660	
Supervisor	1	$48,295	48,295
Secretary	1	16,133	16,133
		$64,428	
Teachers			
Academy	7	$257,817	36,831

Total Salaries of Consultants, Counselor, Resource Consultant, Supervisor, Secretary, and Academy Teachers	$742,905.00
Benefits (29.5%)	219,156.97

Total Human Resources Cost 1992-93 $962,061.97

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Cost of In-Service and Training

The gifted/talented consultant staff annually conducts a day of in-service for the gifted/talented building coordinators in each building. The purpose is to educate them regarding the special characteristics and needs of gifted/talented students, familiarize them with program options and delivery of services for gifted/talented students, and give them specific guidelines for carrying out their duties as the building coordinator. This is held in August prior to the first contract day for teachers. Teachers and consultants are paid an hourly rate for the training.

August 1992 In-service Costs:

10 Consultants, 12 hours each @ $16.65 per hour	$1,998
51 G/T Building Coordinators, 6 hours each @$16.65	$5,094
Total	$7,092

Each year one-half of the building coordinators on a two year rotation are urged to attend the Iowa Talented and Gifted Conference as in-service training for them. Interested principals as well as the G/T consultant staff are also encouraged to attend.

October 1992 Iowa Talented Gifted Registration Costs (Attended by 14 Building Coordinators, 9 G/T Consultants, 4 Principals, 1 G/T Supervisor)	$2,312

Materials and Equipment

Print Material

Textbooks selected for the Central Academy classes grades 8 to 12 are screened for high level content. The eighth grade American Government class uses the district adopted twelfth grade text. All textbooks used in Advanced Placement classes are college level texts adopted from guidelines established by The College Board. (See Appendix E for listing of the texts used and course descriptions.)

The gifted/talented program has an extensive library of resource materials in specific content areas. Based on individual student needs, consultants share these resources with classroom teachers, use them for specific classes such as pull-out situations either in the building or at the district level, or use the material as they work individually with students.

Technology and Equipment

The senior high consultant in cooperation with each high school coordinated a program, Metropolitan Area Academic Competition (MAAC), as preparation for the Academic Decathlon. Each of the five Des Moines High Schools and Urbandale High School were linked with one other high school using the interactive video system. Three pairs of two schools faced each other via fiber optics simultaneously on Thursday afternoons for the "quiz bowl" style competition.

All consultants and Central Academy teachers have access to computers, copy machines, and overhead projectors. Computers are used extensively for keeping records, maintaining student grades, preparing class lecture notes, processing communication to students, parents, and building staffs. In the Central Academy language arts classes computers are used for word processing. A computer based geometry course is now being taught. Classroom sets of TI-81 graphing calculators are used for the advanced mathematics classes.

The science classes in addition to the traditional biology, chemistry, and physics lab equipment use laser disks in place of traditional films. For example, in AP Biology, pig dissection is now done on laser disk rather than using animal parts. Recombinant DNA labs use micropipets and electrophoresis chambers. Students use computer programs in earth science for stratigraphy and looking at rock formations and faults. In AP Chemistry CD ROMs are used to teach thermite reaction. A computer based module is used in teaching acid based titration.

New Equipment Being Examined

In the *Curriculum and Evaluation Standards for School Mathematics* issued by the National Council of Teachers of Mathematics, an emphasis is being placed on mathematics teachers becoming facilitators, ("The guide on the side, rather than the sage on the stage.") To implement this the program is investigating more uses of CD-ROM for real world applications of mathematics. More computer demonstrations are needed with software such as Master Grapher, MacNumerics, Algebra Plotter Plus, and Maple. Moving to classroom sets of TI-85 graphing calculators for upper level mathematics from the current sets of TI-81's is being considered.

Other technology equipment that is being considered for use in Academy classes includes: Weather Station for MAC computers, Satellite reception system, Mechanical Universe, Force Tables (S and Welch), CDI player and computer, an environmental chamber/greenhouse, dual mounted televisions in each room, electronic scales, VOM meters, lasers, PASCO Physics equipment, Laser disk player with two to four units, LCD screens with overhead which would enable the entire class to view a scientific computerized lesson.

Several lap top computers have been purchased and additional new model computers and printers are being considered for both students and staff.

Community Resources

Since 1981 the gifted/talented program has hired a community resource consultant to coordinate educational experiences for gifted students with community persons. Often the needs of these students go beyond those experiences offered by the school. At other times community persons can provide additional enrichment for the learning experiences at school. Each year approximately 100 community persons provide "direct instruction" for 1500 students. (Some students may participate in more than one activity.) These persons give approximately 550 contact hours each year working with students. At the teacher negotiated rate of $17.00 per hour this is a dollar investment savings of $9350. Many persons spend additional time in preparation and travel. Other businesses, institutions and individuals contribute goods, facilities, and in-kind support or serve on district committees to assist in the education of the gifted.

The following is a partial listing of community resources contributing to gifted/talented education over the past two years:

All American Litho
American Institute of Architects
American Republic Insurance
Ballet Iowa
Better Homes & Gardens (Meredith Corp.)
Blank Park Zoo
Brooks, Borg, and Skiles
Brown Engineering
Business Design Interiors
C M F & Z Advertising
C.C. and C. Recycling
Camp Wesley Woods
Capitol String Quartet
Central Life Companies
Chuck Saul Engineering
Civic Music Association
Co-Motion Dance Theater
Dain Bosworth and Company
Des Moines Area Community College
Des Moines Art Center
Des Moines Botanical Center
Des Moines Metro Opera
Des Moines Playhouse
Des Moines Public Libraries
Des Moines Register
Des Moines Water Works
Drake University
Drake University Law Students
East Euclid Hy-Vee
Frevert-Ramsey-Kobes Architects
Frey, Baldwin, Clause Architects
Grand View College
Grinnell College
Herbert Lewis Kruse Blunck Architects
Hubbell Animal Hospital
Iowa Air Guard
Iowa Dance Theater
Iowa Department of Natural Resources
Iowa Lutheran Hospital Day Care
Iowa Methodist Medical Center
Iowa Power
Iowa Public Television
Iowa State University
Izaac Walton League
Junior League
KCCI-TV
KDSM-TV-17
Kirk VanOrsdale
KJWW Engineering
Lily Society
Mel Shivers Architecture
MENSA
Mercy Hospital Medical Center
Microware Systems Corporation
Midwest Gas
National Weather Service
Northwest Airlines
Old Creamery Theater
Patchwork Puppets
Percival Galleries
Pharmacists: Forbes, Sinnwell, Phillips
Pioneer Hi-Bred International
Pioneer String Quartet
Polk County Conservation Commission
Principal Financial
RDG Bussard Dikis Architects
Science Center of Iowa
Shiffler Associates
Shive-Hattery
State Historical Building
Stouffer and Smith Architects
The Design Group
Toastmasters International
Townsend Engineering
Triad Productions, Inc.
Universal Outdoor Advertising
University of Iowa Arts Outreach
VOV Architecture and Design
WHO-TV

In addition to businesses listed, the following individuals have worked with gifted students either individually or in groups. (It should be noted that some are Des Moines Public School teachers who have worked after contract hours with gifted/talented students.)

Adams, Barbara; Math Teacher
Allen, Phyllis: Public Speaking
Armentaro, Virginia; Writer
Aschbrenner, David: Drake Math Student
Ballou, Monte; Electrical Engineer
Beisser, Sally; Writer
Belding, Heidi; Grand View Math Student
Bergeson, Judge; Polk Co. Courthouse
Bittner, Carol; Art Teacher
Boyles, Ann; Inventive Thinking
Brindley, Sheryl; Medieval History
Brock, Clarence; Math Consultant
Broin, Ruth; Writer
Brown, Beth; Ecology
Burkhall, Stephanie; Writing
Busbee, Kim: Drama
Cagwin, Mary Ellen; Computers
Callan, Bonnie; Earth Science
Campbell, Sharon; Art Teacher
Carlsten, John; Composer
Carmona, Linda; Drake Violinist
Carrico, Jim; Art Teacher
Cervosek, Corey; Professional Violinist
Coon, Don; Math
Corning, Joy; Lt. Governor
Cott, Tami; Anthropology
Cox, James; Music Education Professor
Cox, Steve; Art Teacher
Coxe, Molly; Author
Danielson, Kathie; Public Speaking
Day, Wayne; Solar System
Dunlap, Jodie; Grand View Math Student
Erickson, Jim; Radio and Television
Erickson, Elaine; Pianist/Composer
Fenton, Judge; Polk Co. Courthouse
Ferguson, Dr. Pamela; President, Grinnell
Fogarty, Jim; Drama
Folkerts, Dennis & George, Rich; Solar Car
Gajdel, John; Attorney
Gandy, Kathy; Geology and Rock Classifying
Gerberich, Steve; Sculptor
Gill, Mary Jane; Art Teacher
Giovannini, Brian; Chess
Greenwood, Stan; Photography
Halverson, Denise; Math
Hamilton, Gene; Professional Artist
Hawthorne, Frances; Black History
Hardy, Kay; Math
Heaps-Nelson, Tom; Chess
Hilliard, Mary; Social Worker
Hines, Michelle: Drake Graduate Math Student
Hobbs, Ayana, Drake Political Science Student
Hodges, Dr. Laurent; Iowa State Physicist
Holveck, Jack; Iowa House of Representatives
Hudson, Johanna; Math
Hunter, Dan; Playwright
Hutchison, Sarah Grant; Professional Artist
Imlau, Elaine; Fabric Design
Jacobs, Jennifer; Drake Writing Student
Jones, Buck; Cartoonist
Jordan, Alice; Composer
Kabel, Melinda; Art Teacher
Kidd, Tom; Playwright
Lakin, Charlene; Librarian
Langley, Marie; Drake Writing Student
Larsen, Libby; Composer
Leary, Jim; Iowa State Professor
Leonardo, Peggy; Art Educator
Macht, Sarah; Historian
Mamalakis, Alexandra; Drake Writing Student
Marcus, Robin; Drake Math Student
Mason, Donald; Attorney
Mathewes, Jennifer; Drake Writing Student
Mathis, Mike; Math/Science
McCollum, Lynn; Math
Mclean, Glen, Radio and Television
Meise, John; Drake Math Student
Mennenga, Gordon; Writer
Meyer, Lisa; Drake Math Student
Micich, Paul; Professional Illustrator
Manning, Jerry; Futurist
Morales, Concetta; Professional Artist
Morine, Kristin; Art Teacher
Neighbour, Jenny; Creative Dramatics
Newman, Kathy; Architect
Packard, Ginger; Creative Dramatics
Perry, Julie; Dancer
Phipps, Dave; Cartoonist
Pille, Judge Glen; Polk County Courthouse
Princeton, Kim; Drake Writing Student
Rasmussen, Lisa; Art Teacher
Ross, Thomas; Attorney
Roy, Scott; Architectural Planner
Sanderson, Lucy; Communication
Schwarz, Marilyn; Writing/Music
Scofield, Sandra; Author
Scroggs, Sharon; Solar System
Segebart, Margery; Storyteller
Seitz, Sue; Math
Shaffer, Dana; Grand View Art Professor

(Community Resources; Individuals, Continued)

Shambaugh, Mary Beth; Art Teacher
Smith, Stephen; Genetic Engineer
Speed, Robert; Composer
Stanfield, Paul; Writer
Stangl, Ana; Drake Music Student
Taylor, Ray; Iowa Senator
Thompson, Judy; Inventive Thinking
Thomson, Paula; Mime
Tucker, Bob; Attorney
Tutt, Tim; Drama
Viars, T. Valada; Mime
Volkmer-Jones, Stephen; Math
Washington, Rudy; Leadership
Williamson, David; Sculptor
Witten, Benjamin; Sculptor
Wolf, Ruth; Drake Math Student
Zook, Peggy; Writing

Partners for Progress

The Central Academy has benefited from an unusually supportive business partner, The Central Companies. Mentorships, shadowing experiences, and part-time job opportunities are available to academy students and graduates. They have provided summer jobs, and in some instances advanced a salary so the student would have funds to attend a special summer workshop. They provided financial assistance so students could attend Drake University while still in high school to take math courses beyond that offered by the Academy curriculum. Central Life provided a classroom set of graphing calculators for advanced math classes at the Academy. Over the past four years they have contributed scholarships totaling $19,000 to assist students in paying Advanced Placement testing fees.

This company has provided both financial, educational, and moral support for the Academy students. Each year they sponsor a Senior Recognition Night when juniors, seniors, and their parents along with the Academy staff join to recognize the entire senior class. Awards are given to each senior student and selected individuals are recognized for outstanding achievement in math, science, English, and social studies. In reciprocation Academy teachers and staff have worked with the Central Companies in "Lunch and Learn" seminars and other cooperative ventures.

PROCESS EVALUATION

Responsibility Statement

It is the responsibility of the Supervisor, Gifted/Talented Education, to provide leadership, guidance, and support for G/T staff and Des Moines Public School employees who are involved in initiating, maintaining, monitoring, and differentiating educational programs and services for gifted and talented students. The supervisor is the primary advocate for gifted and talented students in the Des Moines district.

Organizational Tasks

The organizational tasks to be performed by the supervisor include monitoring existing programs and services to G/T students, initiating, and implementing new or modified programs and services, evaluating G/T programs and personnel, providing in-service to G/T staff and other Des Moines Public School employees, and planning and monitoring the G/T budget in accord with state and board guidelines. The supervisor is also expected to work with parent and other G/T and professional groups at local, state, and national levels.

Organizational Relationships

The Supervisor, Gifted/Talented Education, reports to the Director of Central Campus and is responsible for supervising all services to gifted/talented students in the Des Moines Public Schools. The supervisor has a working relationship with the Assistant Superintendent, Teaching and Learning; the Executive Director, Elementary and Early Childhood Programs; the Executive Director, Middle and High School Programs; building principals, and each of the Teaching and Learning Instructional Services supervisors.

1992-93 Objectives
Supervisor, Gifted/Talented Education

Weight (%)	
30%	1. Assist, support and direct G/T staff in identifying, evaluating and meeting needs of students referred for services.
20%	2. Facilitate district and community concerns in reference to G/T education through meetings, correspondence, phone, and professional development.
20%	3. Assist and support the Des Moines Public School administration in meeting the school's mission. This includes the G/T program evaluation.
10%	4. Assist, support, and advise building administrators in reference to G/T student needs.
10%	5. Develop, monitor, and execute the G/T budget for the district. Seek out and request additional funding sources to support G/T education.
10%	6. Review, conduct, interpret, and respond to current G/T research and incorporate appropriate changes into the Des Moines program.

Instructional Methods

The gifted/talented program is a leader in innovative instructional methods and the use of technology. Below are some of the ways in which services are delivered to students:

- Inter-active video for student conferences and seminars, and the Metropolitan Area Academic Competition
- Computerized accelerated geometry class
- Graphing calculators used in advanced level mathematics classes
- CD-ROM and lasers disks used for instruction in Advanced Placement science classes
- Individualized computer instruction
- Multiple age grouping for instruction
- Differentiating for instruction based on needs, abilities, and learning styles
- Articulated radical acceleration in mathematics including a summer program for 5th graders
- Use of authentic assessment for G/T identification (portfolios and student products)
- Mentors working with students to individualize instruction
- Elementary students bused by grade level to one of five locations for a 3 week "pull-out" for instruction in process skills with other students of like ability
- Use of community resources to teach classes during and outside the regular school day
- Weekend retreats for middle school gifted/talented students
- Educational/Social weekends to Minneapolis, St. Louis, or Chicago for Academy students
- Dual enrollment, high school and college
- Grade acceleration for selective individual students
- Early graduation from high school
- College professor teaching college level course at Central Campus for high school students
- Selected elementary students attending middle school for a portion of the school day
- Secondary students enrolled half-day at Central Academy for accelerated instruction
- Middle school workshops, "Options for Girls," to explore career and social-emotional issues of gifted/talented females
- Saturday Institute in math/science and humanities for secondary students (See Appendix F)
- Parent involvement in teaching enrichment classes (Example: Jr. Great Books, Omnibus)
- Parents as coaches for Odyssey of the Mind, Mock Trial, Future Problem Solving
- Student enrichment experiences with community businesses and organizations
- Summer enrichment through G/T Summer School and Outdoor Adventure Camp (See Appendix G and H)
- Support for individual growth through summer experiences such as music camps, science and technology, engineering, Young Scholars Programs, Governor's Summer Institute
- Participation in nationally organized competitions: Academic Decathlon, Artifact Box, Mock Trial, Future Problem Solving, Odyssey of the Mind, Knowledge Master, Math Counts, Math Olympiad, Geography Bowl, History Day
- Cooperation with the Science Center, Art Center, Botanical Center, and Playhouse in providing classes for gifted/talented students.
- Parent/child workshops

Job Descriptions

The gifted/talented consultant staff, counselor, and supervisor hold Masters Degrees with additional college hours. All had successful teaching experiences prior to these positions. (Job descriptions are on file in the office of Gifted/Talented Education, Des Moines Independent Community School District, 1800 Grand Avenue, Des Moines, IA 50309-3399.)

In-Service

Because teacher training institutions provide little education for teachers on the characteristics, needs, and curricular differentiation methods for gifted/talented students, the program staff does extensive training for district staff in these areas. In most cases building in-service topics were requested by the principal or the building staff. Providing in-service training has become a major part of the G/T Consultants' role. They have presented the following in-services during the 1991-92, 1992-93 school years.

Number of In-Services	Title of Presentation	Number Attending
Building Staff In-Service:		
26	Differentiating Curriculum for Gifted Students	245
80	Developing Individual Written Plans for Gifted Students	370
16	Math Acceleration for Elementary Students	200
18	Learning Styles	360
10	Cross Cultural Awareness	480
7	Invention Convention	140
8	Odyssey of the Mind	205
6	Using the Kingore Observation Model for Primary Identification	120
5	Developing Portfolios	100
4	Understanding the Needs, Characteristics, and Modifying Curriculum for G/T Students	35
2	Reader Leaders	30
2	Black Inventors	10
1	Differentiating the Reading Curriculum for Gifted Students	30
1	Meeting Academic Needs of Gifted/Talented Students	20
1	Minority Identification	20
1	Differentiating Math and Literature Curriculum	12
1	Giftedness and African Americans	25
1	Giftedness in Minority Populations	25
1	Art Screening for G/T Identification	5
1	Questioning Strategies and Creative Thinking for G/T Students	15
192		**2447**
Des Moines Schools March In-Service and Other District Wide Sessions:		
3	Invention Convention	85
3	Understanding Counseling Needs of the Gifted Child	145
2	Stress and the Gifted Child	100
1	Exploring Personal Myths	20
1	Using Intuition	20
1	Developing a Reader Leader Program	25
1	The Role of Silence in Creative Thinking	20
1	Using the Newly Adopted Elementary Social Science Textbook	22
1	Moral Education for Gifted/Talented Students	25
1	Talents Unlimited	15
1	Put On Your Thinking Hat	30
1	Portfolio Activities Using the Kingore Model	22

Number of In-Services	Title of Presentation	Number Attending
1	Gifted/Talented Students: An At Risk Population	20
1	Managing the Social-Emotional Needs of Gifted	45
1	Classroom Differentiation for the Gifted	25
4	Youth At Risk (Phase III Staff Development	95
2	Introduction to Effective Teaching (Phase III Staff Development)	48
2	CARE (Phase III Staff Development)	46
2	Higher Order Thinking Skills (Phase III Staff Development)	45
1	Introduction to Gifted Education (Staff Development)	7
31		**860**

Parent In-Services:

27	Informational Meetings for Parents of Gifted (Local School)	320
10	Middle School Informational Meetings for In-Coming Sixth Graders	250
5	Middle School Parent Creativity Fun Nights	125
5	Philosophy and Curriculum of Central Academy	550
4	Omnibus Leader Training	40
4	Night of the Notables from Autonomous Learner Model	150
3	Elementary Parent Informational Meeting Regarding Academy	75
2	Saturday Institute Parent Information Meeting	245
6	Ten-Week Series of Classes, Supporting Emotional Needs of Gifted	130
1	Des Moines Talented & Gifted Association.: Middle School Programs	20
1	Parenting the Gifted; with Dr. Colangelo, University of Iowa	85
1	Gifted/Talented Advisory Council: Math Acceleration	25
1	Gifted/Talented Advisory Council: Identification	20
70		**2035**

The gifted/talented staff is respected beyond the local district for its expertise. Listed below are some presentations made in the area, the state, nationally, and world wide.

Area Education Agency Classes:

5	Focus on Humanities	125
4	Learning Styles	50
4	Strategies for Teaching Primary Gifted Students	60
4	Strategies for Teaching Intermediate Gifted Students	65
2	Introduction to Gifted Education	20
2	Observation and Practice in Gifted Education	20
2	Managing the Social and Emotional Needs of Gifted/Talented Students	30
23		**370**

Area Education In-Services:

4	Future Problem Solving	45
2	Omnibus Training	15
1	Helping Parents Help Gifted/Talented Students	18
7		**78**

Number of In-Services	Title of Presentation	Number Attending
Iowa Talented and Gifted Association Presentations:		
1	Moral Education for the Gifted	25
1	Silence: The Role in Creative Thinking	20
1	Views of the Future: Optimistic or Pessimistic	15
1	What About Primary Gifted?	25
1	Using Intuition	20
1	Exploring Personal Myths	20
1	How to Advocate for Gifted Education	35
1	Gifted/Talented: An At Risk Population	40
1	Odyssey of the Mind	25
3	Parent Advocacy Workshop Presentations	130
12		**355**
Outside the Des Moines District:		
5	Learning Styles and the G/T Curriculum	170
2	Teaching Thinking Skills (Iowa State Education Agency)	75
2	Odyssey of the Mind (Van Meter and S.E. Polk Schools)	20
1	Understanding the Needs of Gifted (Iowa PTA Conference)	65
1	Accepting Diversity (Martin Luther King Youth Forum)	150
1	Multi-Cultural Issues (Houghton Mifflin Pub. Boston)	25
1	Creativity in the Classroom (Des Moines Diocese)	20
1	Developing Self-Esteem (West Des Moines Schools In-Service)	45
1	Working With Parents of Gifted (Keystone AEA, Elkader)	60
1	Using Community Resources (CONTAG, Univ. of Northern Iowa)	55
1	Understanding Your Gifted Child (Iowa Parents and Family Summit)	10
1	Using Learning Styles (George Betts Workshop, Boone)	12
1	Working With Parents of Gifted (George Betts Workshop, Boone)	8
1	Managing Social Emotional Needs of Gifted (Betts Workshop, Boone)	10
17	Topics: Special Needs of Gifted, What Can Parents Do?; What Parents Should Expect for Their Gifted Child; How Parents Can Talk to Schools; (Local ITAG Affiliate Parent Groups: Fairfield, Ames, Ankeny (2), West Des Moines (2), Knoxville, Riceville, Newton, Algona, Boone, Ottumwa, Grimes, Solon, Council Bluffs, Clear Lake, Dubuque AEA)	370
37		**1095**
National Association for Gifted Children: (Kansas City and Los Angeles)		
1	What About Primary Gifted?	35
1	Using Community Resources With Gifted	40
1	Gifted/Talented: An At Risk Population	55
1	Des Moines Schools' Central Academy	50
1	Guided Discussion Groups for Parents of Gifted	35
5		**215**
Other National Presentations:		
	American Creativity Association:	
1	Fostering Creativity in the Young Child	25
1	DeBono's Six Thinking Hats	30

Number of In-Services	Title of Presentation	Number Attending
1	Creative Problem Solving With the Young Child	20
1	Give Yourself a Creative Whack	25
	International Association of Ethicists:	
1	Approaches to Teaching Moral Education In the Public Schools	15
	Association For Childhood Education International:	
1	National Education Forum Report	45
	Supporting Emotional Needs of Gifted Conference (Charlotte, NC)	
1	Establishing Guided Parent Discussion Groups	50
1	Getting Parents and Communities Involved	35
	Supporting Emotional Needs of Gifted Conference (Minneapolis, MN)	
1	Keynote Address: What Parents Should Expect for the Gifted	350
1	How Parents Can Talk to Schools	25
1	Parent Discussion Group on the Topic, Motivation	35
6	Training Workshops for Parent Guided Discussion Groups St. Paul (2), Dayton, Ohio (2), Great Falls and Helena, MT	136
17		**791**
World Gifted Conference:		
	The Hague, Netherlands:	
1	Guided Discussion Groups for Parents of Gifted	50
	Toronto, Canada: (Summer 1993)	
1	Using the Kingore Observation Model for Identification	
1	Mathematics Acceleration Programs: Large Districts	
1	Using Community Resources in the Gifted Program	
4		**50**

During 1991-92 and 1992-93:
Total Number of Staff Presentations: 398
Total Number of Persons Reached: 8296

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Professional Development

The gifted/talented staff regularly attends professional conferences and workshops to keep abreast of the latest trends and educational practices in order that they might carry out their role as consultants to classroom teachers, parents, students and other educators. This training provides the knowledge and skills to effectively in-service local staff regarding ways to meet the needs of gifted/talented students. Some take graduate courses in educational leadership and gifted education. Many of the conferences, such as the Autonomous Learner Model Conference in Colorado; the Kathleen Butler "Style Differentiated Instruction" training at Cape Cod; the Supporting Emotional Needs of Gifted Conference in Charlotte, North Carolina, and in Minneapolis, were attended by staff during the summer on their own time. Other training workshops were attended after school, often at Heartland Area Education Agency monthly from 4:15 to 6:15 p.m.

The staff received the following professional training during the 1991-92 and 1992-93 school year.

Number of Staff	Type of Training	Number of Days
20	Iowa Talented and Gifted Conference	40
13	National Association for Gifted Children	39
9	George Betts Autonomous Learner Model Training	30
6	Connie Belin G/T Leadership Institute	12
8	National Association for Gifted Children	10
6	Treffinger: Gifted Programming for a New Era (4/93)	12
2	Create Your Own Book Workshop	2
2	Martin Luther King Workshop	2
1	American Creativity Association Conference	2
2	Kingore Observation Inventory Training	2
1	Kathleen Butler: Learning Styles	5
1	Early Childhood Association State Conference	1
1	Marzano: New Dimensions Program	1
1	International Baccalaureate Seminar	1
1	NASA Workshop	1
1	Minority Identification (Held in North Carolina)	1
1	Dr. Susan Bailey: Equity in Education	1
	Total Days Professional Training	**162**

Professional Meetings:

The Gifted/Talented Consultants are regular attendees at local professional meetings. They also are involved in leadership roles in which they represent the organization at regional, state, and national meetings. Below is a partial listing of those roles:

Nominated for National Board for Professional Teaching Standards
Nominated for National President Elect, 1994-95, Association for Childhood Education International
Delegate to NEA Conference, "Pluralism and School Restructuring," Atlanta, GA
President, Phi Delta Kappa; Delegate to International Conference, Indianapolis; Regional Conference, Minneapolis
President, Delta Kappa Gamma, Alpha Mu Chapter; Delegate to State & Regional Meetings
Association of Supervision and Curriculum Development Workshop: Chicago
State Board Member and Regional Director: Odyssey of the Mind
Phi Delta Kappa Delegate to Governors' National Education Forum
First Vice-President: Iowa Talented and Gifted Association
Co-Chair: Parent-Community Division, National Association For Gifted Children

Expected Improvements

It is expected that building staffs will have more knowledge about the characteristics and needs, both cognitive and affective, of gifted students as a result of in-service efforts. Specific training regarding learning styles, writing individual plans, and ways to differentiate curriculum allows teachers to feel more comfortable in carrying out lesson plans for gifted/talented students. Increased understanding will lead to attitudinal changes which will allow gifted/talented students to work at a level and pace commensurate with their abilities. The extensive work with parents encourages increased home/school cooperation and support which has been documented as being crucial to student achievement.

Influence of Technology

At the secondary level technology is changing instruction from experiments and problems done with manipulatives to laser disk and CD ROM lessons. The Advanced Placement Biology class, for example, does fetal pig dissection via laser disk. An advanced geometry class is taught using computerized instruction.

Teachers are using computers to maintain student records, compute grades, record lesson plans, class lectures, and tests. In-house staff communication has improved through the use of computers, and communication outside the district is more efficient via FAX. Computers are used in instruction to individualize lessons for students. In some cases where fine motor skills in elementary school lag behind the intellectual level, students have learned word processing skills to facilitate assignments and writing projects.

Technology provides a more efficient access to student records. Computerized labels and letters are used in mailings to students and parents. Computerized scoring and the screening of student scores aids in compiling information for identification for the G/T program and for eligibility for such programs as the Central Academy, accelerated math, or for matching any offering with students' ability or identification area. For example invitations to an advanced after school art class can be sent to those students identified in art through computer screening.

Technology has influenced staff work by reducing the time spent with paper work and records; however time does need to be spent in seeking out new technology opportunities, considering the applications for a particular content area, and in receiving instruction and practice on how to utilize technology most efficiently.

Communication Within the Gifted/Talented Program

The supervisor of gifted/talented education meets monthly with the consultants to coordinate identification and programming efforts with gifted/talented students. The Academy Consultant meets regularly with Academy teachers and counselor. Elementary, middle school, and the high school consultants meet on a regular basis once a week, and more often if necessary, with the building coordinator and/or other staff in each district building to coordinate programs for gifted students. These consultants, when appropriate, also meet with and provide direct instruction to students. Three elementary consultants serve eight buildings; two serve nine buildings; each of the two middle school consultants serves five buildings; and the high school consultant serves the five comprehensive high schools and two alternative high schools. The Academy Consultant coordinates the activities at Central Academy, and the G/T Counselor has primary supervision for guidance of Academy students with in-service responsibility for other counselors and assistance with other gifted/talented students on a referral basis. The Community Resource Consultant coordinates efforts for students K - 12 that involve persons and programs outside the regular school curriculum. Programs are arranged at the request of consultants, building staffs, parents, or students based on student needs and abilities.

PRODUCT EVALUATION

Evidence of Program Contribution to the District Mission

The Des Moines Independent Community School District will provide a quality educational program to a diverse community of students where all are expected to learn.

"We must expect and provide opportunities for every child to learn. This is the focus of the effective schools movement." (From the Framework for Effective Schools.)

The Des Moines Schools Gifted/Talented program provides services enabling *all* to learn. For gifted/talented students this means taking them beyond the traditional requirements. For students who already score at the 99th percentile on standardized tests, or who enter the classroom knowing 80% of the course content (as determined by University of Connecticut studies of gifted students), additional services are required. Evidence that students are progressing beyond the core curriculum is shown by the 421 students, grades 8 to 12, who successfully attend the Central Academy, a program whose eligibility is based upon identification in the Des Moines gifted/talented program for high intellect or a specific academic area; and/or test scores of the 98th or 99th percentile on the Iowa Tests of Basic Skills in mathematics, reading, and/or the total composite.

These students have successfully competed in national academic competitions. In 1991-92 Academy students received the following honors:

- American Scholastic Mathematics Association Competition; 1st Place National Recognition
- National Mathematics League Calculus Exam; 13th in the nation
- National Language Arts Olympiad; 5th in the nation in grade 9
- National Science Olympiad, Physics; 6th in the nation; 1st in the region
- U.S. History Day National Competition; 1st place team in the nation
- American Chemical Society Nat'l. Chemistry Olympiad; 2 students high honors, 3 honors
- American High School Mathematics Exam; 19 National Qualifiers
- Odyssey of the Mind Team; 5th in World Competition
- National Advanced Placement Scholar; (One of the top 13 scholastic students in the nation)
- National Knowledge Bowl; One of top 8 teams
- 12 National Merit Scholarship, Semi-finalists
- 20 National Merit Scholarship, Commended
- 4 Semi-Finalists, Presidential Scholar Program (1993)

Students graduating from the Academy have been accepted at a variety of colleges and universities in Iowa and across the nation. Some of the more selective schools have been Harvard, Yale, Massachusetts Institute of Technology, Stanford, Cal Tech, University of Chicago, Northwestern, Grinnell, Carleton, Macalester, Harvey Mudd, and Amherst.

In 1992, 100 Academy students took 247 Advanced Placement tests. Across the nation and in 65 foreign countries 400,000 students participated in AP testing. From this group, based on the number of tests they took and the score they received, approximately 42,000 earned the distinction of AP Scholar. In Iowa 144 students achieved this honor, of which 53 or 37% attended Central Academy.

1992 Advanced Placement Award Data

	Iowa	Des Moines	Des Moines as % of Iowa Total
AP Scholars	86	22	25.58%
AP Scholar with Honors	29	10	34.48%
AP Scholar with Distinction	29	21	72.41%
12th Grade Scholars	110	25	22.73%
11th Grade Scholars	33	28	84.85%

Results of a survey from the 1990 graduating class indicated that because of the Advanced Placement program at the Academy 1/3 of those responding entered college with sophomore standing; 82% received college credit and earned an average of 20 semester hours of credit. (Eighteen of twenty-four graduates responded to the survey.)

In response to the question regarding the influence of the Academy on preparation for college level coursework, 88% indicated an extremely positive influence; 81% indicated they were better prepared than their college classmates; 19% indicated they were equally prepared.

In a survey sent to 1991 Central Academy graduates during their first year in college, the following comments were made regarding the value of attending the Academy:

University of Chicago Student: *"If the Des Moines School District has excellence in education as its goal, Central Academy is the literal objectification of that goal, and nothing less."*

Grinnell College: *"I would attend again because it enabled me to work more on a level that was appropriate for me. I learned a lot about myself, my abilities and my limitations, and I gained many new friendships. The most important thing I learned is that no matter what level I was on compared to my classmates, a lot of hard work would allow me to accomplish anything. That work ethic will follow me all through my life."*

Evergreen State College: *"Perhaps the most important thing I learned at Central Academy was how to study in general. It helped me formulate good study habits, which are a necessity for success in college. It also prepared me for the amount of work I would need to do in college (currently about 60 hours a week). The Academy is definitely a worthwhile program."*

Iowa State University: *"I would definitely attend the Academy again if given the choice. It is a very positive learning environment and the teachers are excellent. . .. The Academy also has a positive social influence. Students are more understanding of one's attitude(s) towards school and his/her goals. Students no longer feel as singled out as 'the model student' by teachers because all of the Academy students are highly intelligent and self-motivated."*

Massachusetts Institute of Technology: *"I feel that the Academy played a major factor in helping me get into M.I.T. because it offered the Advanced Placement classes. Those classes were very similar to the classes I have now especially in regards to the exams. I would definitely re-attend the Academy if I were 13 years old again."*

MacMurray College: *"In comparing my study habits to others at my school, I am astonished at how unprepared others are. I have at least 10 -15 people that regularly ask me for help on assignments and to proofread papers for them. Thanks, Central Academy, you changed my life and I'll never forget it."*

University of Chicago: *"The Academy is a wonderful opportunity that I think no eligible student should pass up. I have friends now from Exeter, Phillips Academy and some of the top private schools in the country and none of their programs compare to the Academy. Ours was the only school that offered so many A.P. exams. This program is vital to Des Moines and the State of Iowa."*

District Identified Needs

The gifted/talented program has made significant contributions in addressing the first three district identified needs as listed in the 1992-93 Phase III Handbook:

1. Improve communication with parents.
2. Increase involvement of parents in the delivery of educational services.
3. Increase involvement of parents, business, and community groups in the schools.

As noted in the "Process Evaluation" section of this document, over the past two years the G/T staff has conducted 69 informational or workshop sessions for parents of gifted/talented students with nearly 2000 parents in attendance. Parents are encouraged to be involved in planning, implementing, and signing the Individual Written Plan for G/T students identified for direct services. Approximately 200 businesses, community groups, and individuals have given support to the gifted/talented program, many of them providing direct instruction to individuals or groups of students.

Since 1985, twenty-seven ten-week series of guided discussion groups have been conducted for approximately 550 parents of gifted/talented students. Each session addresses one of the following topics: Identification, Motivation, Discipline, Stress, Depression, Communication of Feelings, Peer Relations, Sibling Rivalry, Tradition Breaking, and Parent Relationships. Parents have indicated overwhelmingly favorable attitudinal changes within the family, between the family and schools, and between the child and the school. "Homework" assignments are given to parents as encouragement to try new skills and techniques with their children." A sample of evaluation responses are shown below:

"The class and book have been a life saver! I can't say enough good about it, and feel every parent should have the opportunity."

"After an attempted suicide, we have been able to re-establish self-esteem for the child involved and the family."

"I cannot recommend it strongly enough. You can't ignore the special needs of the gifted/talented or assume that life will be easy for them."

"The attitude at school is completely different this year. The principal and several teachers have made special efforts and made positive remarks. Twenty-eight discipline slips at this time last year!"

"I've learned how to communicate with my child and it's working."

"There is not enough space to say all the POSITIVE things that have come out of this program. This has been ten weeks of positive re-enforcement ending in a closer family . . . a happier more well adjusted student . . . a more relaxed and secure parent."

"I've learned the difference between guiding and pushing!"

"My child's a happier child, my family a healthier family, and I'm a better person as a result of this class. Thank you."

Program's Greatest Strengths

The gifted/talented program's greatest strength is the expertise and commitment of the supervisor, ten consultants, counselor, and secretary who make up the **staff**. As a whole the staff is diverse with varying strengths which complement each other. As individuals, they are competent, highly trained, and dedicated, beyond district expectations, to advocating for and meeting the needs of the gifted/talented student. They are concerned about the "whole child" and work cooperatively with administrators, teachers, parents, support staff, and the community to see that both the academic and social-emotional needs of the student are met. Their flexibility, versatility, and creativity allow them to work within the unique structure, needs and programs of each individual building. Through their creative and innovative ideas, there is a continued effort to improve the program and the services to students.

Evidence of their capabilities and dedication is shown in the "Process" section of this document, listing the on-going professional training they receive and the 398 presentations they made over the past two years for an audience of 8296 persons. They are recognized as experts in the area of gifted/talented education and make frequent presentations at state, national, and even world conferences. They have been requested as outside evaluators and trainers for gifted/talented programs in other districts. They have been published in professional journals and continually read and attend conferences and institutes to keep abreast of the latest research in gifted education in order to most effectively help highly able students in the Des Moines district reach their potential.

Another program strength is it's flexibility and variety of options for delivery of service to students. Identification and program decisions are made at the building level based on a variety of options within the program. Classroom differentiation, including cluster grouping and compacting the curriculum is crucial to meeting the student's needs. These experiences are enhanced by individual and small group experiences either during or outside the school day. Some are community based; at other times community persons come to the school for individual or group instruction. Organized competitions, district pull-out programs, mentors, or independent studies can be utilized. One of the more visible options that has proven successful is the half-day Central Academy program for highly able 8th through 12th grade students. This format permits students to have academic challenge with other students from the district, but allows them to maintain their home school identity for part of the instructional day and for their extra-curricular activities. An additional strength is that the Des Moines district identifies and provides services in all five recognized areas of giftedness: general intellectual, specific ability aptitude, creative/productive thinking, leadership, and visual and performing arts.

An important program element for Des Moines Public School students is the strong parent/community involvement in gifted education. A full-time community resource consultant coordinates programs using expertise outside the regular classroom setting. Approximately 1500 students annually are enrolled in educational opportunities involving parent and community persons. Parents are encouraged to be involved in their child's education. Teachers, principals and consultants communicate with parents in person, by phone, and by letter regarding their child's educational program. Informational meetings, workshops, and special parenting classes

are held for them. Nearly 2000 parents attended 69 presentations over the last two years. Studies indicate that strong parental involvement is the key to student success in school. The Des Moines Talented and Gifted Association, a parent group affiliated with the state organization, Iowa Talented and Gifted, holds monthly informative meetings for parents of gifted, supports gifted education at the local and state level, and sponsors activities and provides scholarships for gifted/talented students.

Deficiencies in the Program

In many buildings, gifted/talented education is not viewed as an integrated part of the school's curricular programming. Space, time, and/or program philosophy does not allow students to progress at their own pace or meet with others of like ability. Teachers and consultants lack access to the gifted students for testing, interviewing, or program delivery. Building coordinators do not have planning time for program planning, administration, or delivery of services to students. It has not been communicated to the desired level of importance that gifted education is an integral part of the highly able student's school day. The adjustment of services or curriculum needs to be focused on meeting student needs rather than on labeling a select group of students.

The G/T program staff will continue to in-service teachers and administrators on the importance of gifted students being with others of like ability during at least some part of the school day to provide academic challenge, that for many students the curriculum can be compacted (they don't have to do every problem, but only enough to show mastery), and that gifted students have special social-emotional needs that need to be met before academic success can be achieved. Resource rooms will be requested in the Vision 2005 plans, where G/T consultants and teachers can meet with students, can store resource material, and have access to files, computers, telephones and other equipment to more efficiently serve students.

Adherence to State Standards

The Des Moines Public Schools is in compliance with the state mandate for provisions for gifted and talented students by meeting the stated criteria:

1. Valid and systematic procedures, employing multiple criteria, for identifying students including ethnic and language diverse students
2. Provisions for curricular programming to meet the needs of identified gifted and talented students
3. Support services, including materials and staff, to ensure that a qualitatively differentiated program is provided
4. A procedure for annual review and evaluation for the purpose of program improvement.

Unanticipated Outcomes

As consultants and classroom teachers provide appropriate curriculum differentiation for the gifted, more students are achieving at higher levels and thus qualifying for advanced programs. The 1992-93 Academy enrollment is 421 students, 8th through 12th grade. Currently over 550 students who qualify have expressed interest in enrolling in the fall of 1993. This indicates more teachers and classroom space are necessary. As students accelerate through the advanced curriculum, more students will be eligible for post-secondary enrollment, taking college classes beyond those offered in the high school. By state law, districts are responsible for paying the $250 per course tuition fee. In 1989, 17 fifth grade students were given accelerated math instruction. In the summer of 1992, 130 fifth graders qualified for radical acceleration and of those, 54 took a three week half-day summer school class to cover the 6th, 7th, and 8th grade math objectives. As of March 1993, 150 students in fifth grade qualify for further screening for this accelerated program. As more students qualify for this program, additional resources will be necessary to meet their needs.

Observations of the Program

The supervisor makes regular visits to all components of the program. During the 1991-92 school year an appointment was scheduled with the principal in each of 57 buildings in order to assist the administrator and G/T building team in carrying out programs to meet the needs of gifted/talented students. In each building it was observed that a G/T building team of teachers is in place, students have been identified for the program and the names submitted to the G/T office, and a building plan is in place. Building principals have expressed appreciation for the support given them by the G/T program in the delivery of services to gifted/talented students.

The half-day vertical acceleration model in place at the Central Academy has been the envy of other districts. A program visitation to the Academy by Mississippi Bend Area Education educators led to a story in a September 1992 issue of the Quad-City Times indicating serious consideration of a Scott County Academy patterned after the one in Des Moines. A presentation at the National Association For Gifted Children, November 1992, in Los Angeles, prompted several inquiries for further information about the program. Dr. Nicholas Colangelo, Researcher and Director, National Center for Gifted Education, Connie Belin Center, University of Iowa, endorsed the model and noted that the benefits of this kind of delivery system have been documented. "In studies comparing acceleration vs. enrichment activities, acceleration activities are reported to be superior learning environments, especially when criteria are highly selective."

Dr. Leland Wolf, Consultant, Gifted Education, Iowa Department of Education, observed, "One of the strengths of the Des Moines program is the variety of options made available to gifted/talented students. I like to encourage other districts to establish accelerated programs for secondary students based on the Central Academy model. The community outreach program is an excellent example of the link between school and community, which is especially important for gifted children."

Cost vs. Benefits

The gifted/talented program provides services to approximately 13% of the district's students with .8% of the district budget. In addition to the 4054 students identified for the program, other students in the district benefit indirectly from the services provided by the Gifted/Talented Program. Consultants, whose salaries are funded from the G/T budget, have in-serviced classroom teachers in the use of higher order thinking skills, learning styles, and curriculum differentiation. As teachers implement these techniques in the classroom, the instructional level of all students is raised when gifted students are asked questions that require higher order thinking to determine the answers, or when other high ability students are grouped with the identified students for advanced level instruction.

G/T consultants have conducted training, and funds from the G/T budget have paid for teachers and parents to be trained in coaching activities such as Odyssey of the Mind, Future Problem Solving, and Junior Great Books. Registration fees for these competitions often come from G/T funding; however, other district students are encouraged to participate on the teams. At the secondary level, gifted/talented funds have helped subsidize music, drama, and forensic activities. In 1993 the gifted/talented program helped underwrite a production by Opera Iowa in 21 schools. The expectation that musically identified gifted/talented students would be among those participating in the pre-performance workshops allowed G/T funds to help make the opera affordable for the school's student body.

Gifted/talented students are as varied as they are alike. Thus students identified for the program may also be underachievers, at-risk students, low socio-economic, or students with some type of learning disability. As funds and programs from the gifted/talented budget address the many

individual needs of G/T students, these students frequently do not require services from other special district programs.

Volunteers or other in-kind services from parents and the community allow gifted students to participate in many experiences at no cost to the district. The dollar value of 550 hours of yearly community service to students at $17.00 per hour is $9350. The ten tickets a business gives yearly for each of six Civic Music Association concerts at the Civic Center at a value of $18.50 per ticket means a contribution of $1110 for students to hear a professional artist in the area of their musical giftedness.

Program staff is minimal with elementary consultants serving 8 or 9 buildings, middle school consultants serving 5 buildings, and one person serving all the high schools, to ensure that needs of gifted/talented students are being met. Each building has a teacher designated as Gifted/Talented Building Coordinator. This teacher is rarely given a period for administering the gifted program or working directly with students in the building. The $650 yearly stipend they receive is well below the other extra duty stipends or Phase III specialists positions paying $1000, $1500, or $2000 per year. Given the restraints of the gifted/talented budget, it is unlikely that the amount of this stipend will be raised.

Is the program providing more services to students while maintaining staff at a constant level? The answer is overwhelmingly, "Yes." The trend is to offer significantly more services to the 3029 talent pool students in contrast to the emphasis in previous years of providing direct services predominantly to only 3% of the population. In addition more programs and services are continually being added. For example, in 1992 the two alternative high schools were added to the job responsibility of the senior high consultant. This consultant also had primary responsibility for organizing and implementing the newly formed "Metropolitan Area Academic Conference" competition. The G/T Consultant who serves as director of the summer school program had 198 students enrolled in the summer of 1988. In June 1992, 580 students, grades K through 8, attended summer school. In 1981-82, the first year of the Community Resource Consultant position, experiences were arranged for 396 students. The total number of enrollments with community persons in 1992-93, was 1519. The consultant staff continues to provide additional services to increased numbers of students, and thus regularly adds more after-school, night, and Saturday time to their work load.

The G/T budget provides for only one secretary although over the years, student identifications and services have expanded, programs have been added, and enrollments in all programs have increased. This position is responsible for annual written communication with parents of 4054 students notifying them of placement in the program, regular communication with 59 building principals and building coordinators, record keeping and collection of fees for all services offered, and work responsibility for a supervisor, ten consultants, and a counselor.

Revenue Generated

Program fees are collected for many gifted/talented experiences that are held outside the regular school day. In 1991-92, $30,500 was collected for summer school, summer camp, Saturday Institute, middle school retreats, parenting classes, and special after school enrichment experiences. In 1992-93, $600 in costs for arts experiences, (dance, opera, and playwriting) was underwritten by Metro Arts Alliance. A National Endowment for the Arts grant provided $3250 to Metro Opera for subsidized funding of *Hansel and Gretel* in twenty elementary schools.

Improvements That Have Been Made

More decisions regarding programming and funds used for gifted education are being made at the local level by the gifted/talented building team as a result of site-based/shared decision making.

Effective in 1992-93 each elementary and middle school building now joins the high school buildings in receiving decentralized funds from the gifted/talented budget.

There is more acceptance of multiple age grouping as evidenced by the math acceleration program that is in place beginning as early as Kindergarten. As a result of teacher in-service, differentiated instruction is being used for gifted students, through curriculum compacting, alternative assignments, and varied strategies of delivering and evaluating instruction and learning based on the student's learning style.

Efforts have been made in cooperation with the supervisor of Career and Technology Education and the director of Central Campus to identify and facilitate support services for vocationally gifted students. Programs in place at Central Campus provide for high level instruction in technical areas. The gifted/talented program provides some additional experiences and support.

A deliberate effort has been made to expand and unify the district policy for identification of gifted students to include all socio-economic and ethnic groups. The Ravens Progressive Matrices, a non-verbal standardized test, has been piloted and found effective in finding some students overlooked by more traditional methods. Additional minority eligibility for the Academy was a result of using the Comprehensive Test of Basic Skills. This assessment from the California Achievement Test series provides a more culturally bias-free evaluation. Increased use of the Torrance Tests for Creative Thinking has helped to identify other students for services in the area of creativity. At the elementary level where the majority of identification occurs, minority identification has increased from 11.1% in January of 1989 to 13.77% in January of 1993. Overall the number of minority students is up 1.43% in that three year period to 12.9%.

In contrast to the instructional support in special education, which strives to move students from the program into traditional programming, success in gifted/talented education is indicated by increased numbers of students entering programs for high performers. This is exemplified by the chart below which gives enrollment numbers and trends by grade level and year at the Central Academy. The 93-94 projected enrollment is based on the course registration applications currently being processed for that year.

Central Academy Enrollment by Year

GRADE	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94
8th	59	58	76	73	76	106	121	118	192
9th		43	37	51	69	70	97	106	118
10th			39	32	40	53	62	85	98
11th				21	35	40	50	56	90
12th				1	27	35	41	56	57
Total	**59**	**101**	**152**	**178**	**247**	**304**	**371**	**421**	**555**

FUTURE PLANNING

Programming for Gifted Students

Formalized Acceleration Plans

For gifted students to reach their potential, there must be flexibility in the curriculum and in the delivery system of that curriculum. Support for acceleration of content in all major disciplines, similar to that now in place for mathematics, is a priority goal. Just as the district provides identification and programming for students reading below grade level, similar assessments and program modifications must be made for those students performing above grade level. The gifted/talented program will work with subject area supervisors to develop a formalized acceleration plan in reading, language arts, social studies, and science.

Appropriate Learning Settings

Students achieving at similar levels need to be grouped together at some time during the school day for academic challenge. Placing students with others of like interests and abilities increases achievement, helps meet the social-emotional belonging needs, reduces the feeling of alienation and thus the potential for becoming a school "drop-out." Efforts will be made to work with building principals and subject matter supervisors to accommodate both the scheduling and the learning needs for these students. The gifted/talented program is advocating, as part of the Vision 2005 plans, for planning time and a space in the buildings for the G/T building coordinator, consultant, or facilitator to deliver these services to students.

At the elementary level this achievement can be facilitated by departmentalized teaching in the upper units. Concurrent scheduling of content areas at the elementary school will allow for flexibility in placing students in the appropriate level curriculum. Teachers can utilize their areas of expertise to provide challenging curriculum to highly able students in the basic skills areas and then to facilitate the integration of these disciplines. Alternative elementary and middle schools similar to the concept of Central Academy where high ability / high achieving students can be challenged in math, science, social studies, reading, and also creativity and research process skills is a long range goal.

Fine Arts Programming

The fine arts curriculum needs to be expanded for students gifted in those areas. Plans are to refine the identification and programming for students gifted in music. Music aptitude tests will be used along with authentic assessment of student performances. It is desirable to have advanced fine arts offerings at the secondary school as an extension of those services provided at Edmunds Academy. At the high school level, a goal is to expand to Advanced Placement fine arts classes: History of Art, Studio Art, and Music Theory.

Central Academy Growth

Central Academy has proven to be an extremely effective and valuable curriculum delivery center for many G/T students. Currently serving just over 3% of Des Moines students in grades eight through twelve, its rapid and sizeable growth has several implications for future planning. (See Appendix I, Chart 1.) One is the recognition of Des Moines Public Schools as a leader, both in Iowa and nationally, in providing high level curriculum to meet student needs. The dramatic increases in the number of Advanced Placement exams taken in Des Moines (See Appendix I, Chart 2) have sent a clear message that Iowa is moving toward assuming its proper role in national placement for educational excellence. Although Iowa currently ranks 47th of 50 states with 31 AP

exams per 1000 eligible juniors and seniors, Des Moines would rank 14th in the nation with the current numbers of over 112 exams per 1000 of those eligible. Future plans must include a shifting of instructional resources to facilitate this growing, highly successful segment of Des Moines Public Schools.

Source of Funding

It is essential under current educational budget limitations that funding for gifted/talented programming be returned to the modified allowable growth plan. Since K-12 gifted education is state mandated with a funding plan in place through the Iowa Code, the Des Moines district must take advantage of this source of funds. Being asked to do more with less has reached its ultimate limit. Without appropriate levels of funding, needed support services cannot be provided to the district's most able students.

Staff In-Service

The first step in implementing the appropriate curriculum delivery system for gifted/talented students will be a comprehensive plan of in-service for building staffs sensitizing them to the emotional and intellectual needs of exceptional students. Specific ways of differentiating the curriculum in a particular content area will be shared. Subject area supervisors and the supervisor of guidance and counseling will be included in preparing for these in-services. Most will be held in the buildings either with entire staffs or with individual teachers as they deliver services to a particular child. Other in-service will continue to be conducted district wide at the March teacher in-service or at the fall pre-contract day for building coordinators, which is in place in the G/T budget.

The Gifted and Talented Teacher Endorsement added to State of Iowa Teaching Certification will enhance G/T programming, facilitation, and understanding throughout the state and certainly in Des Moines. Teachers will be encouraged to pursue the twelve hours of graduate credit leading to this endorsement. Efforts must continue to fully integrate into Des Moines Schools, delivery systems which meet the needs of exceptional children at both ends of the achievement spectrum.

Equipment

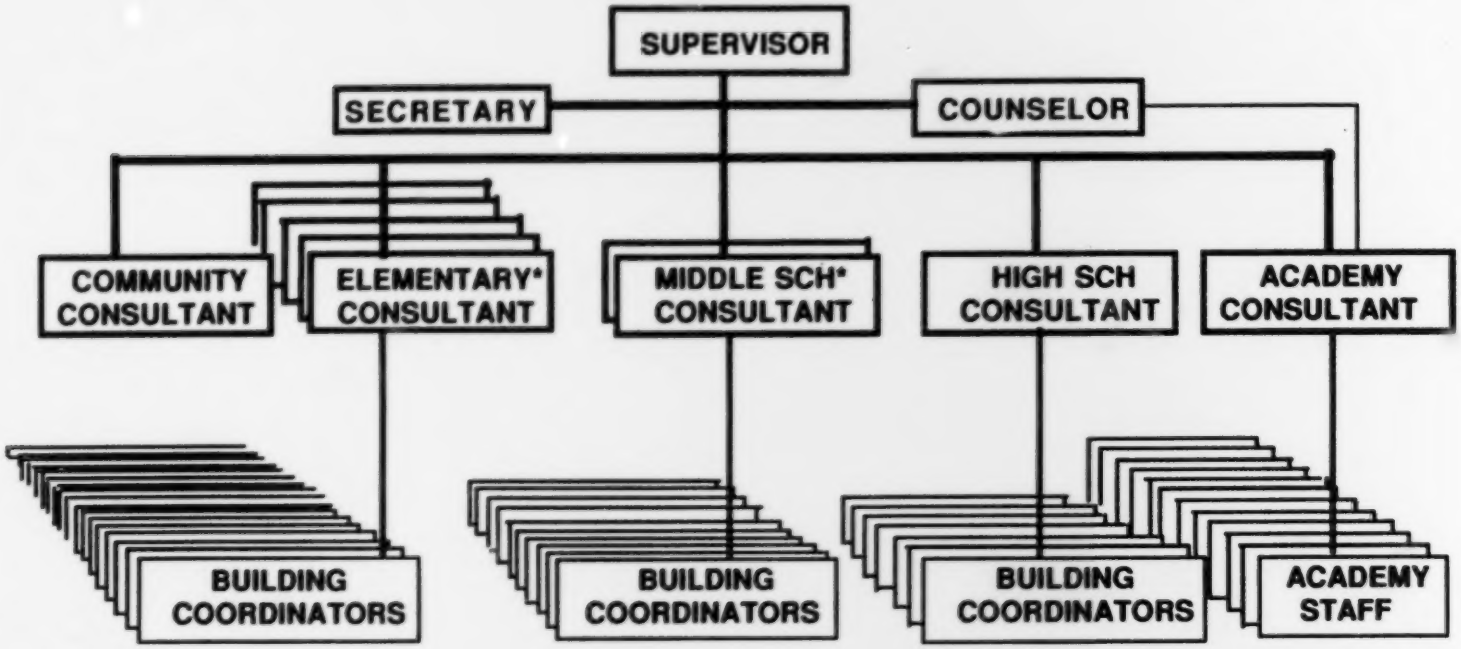
To efficiently deliver curriculum and coordinate the program, technology must be updated. The incorporation of more technology in Des Moines Public School classrooms will allow gifted and talented students an opportunity to utilize appropriate software and computer assisted instruction to differentiate curriculum. This requires constant review and purchase of such material to support student needs. As part of Vision 2005, plans are to remodel and replace outdated Central Academy science labs to facilitate the latest science curriculum. All buildings are being encouraged to have a resource room furnished with a desk, files, and tables and chairs for G/T consultants or building coordinators to plan, up-date records, test students for G/T placement, and deliver services to those students. In order to properly support G/T services, upgraded office machines will be purchased.

Central Academy Curriculum

8th	9th	10th	11th	12th
CA English 8	CA English 9 (Comp/Speech)	CA English 10 (Am. Literature)	CA AP English Language/Comp	CA AP English Literature/Comp
CA Algebra	CA Geometry	CA Algebra II	CA Trig/Pre-Calculus	CA AP Calculus (AB)
CA Algebra	CA Geo/Alg II 2/3 1/3	CA Alg II/Trig 1/3 2/3	CA AP Calculus (AB)	CA AP Calculus (BC)
CA Geom/Alg II 2/3 1/3	CA Alg II/Trig 1/3 2/3	CA AP Calculus (AB)	CA AP Calculus (BC)	Calculus III, Dual Cr. or Ind Study Math * (Drake University)
CA U.S. Gov't/ State Gov't	CA Early Civ/ Humanities	CA AP European Hist	CA AP U.S. History	CA AP Comparative Governments/ CA AP Economics
CA Accel Earth Science	CA Elements of Chem & Physics	CA AP Biology	CA AP Chemistry	CA AP Physics

*Special programming is available for needs beyond the stated mathematics curriculum.

DES MOINES PUBLIC SCHOOLS
GIFTED & TALENTED EDUCATION



41 Elementary **10 Middle School** **7 High School** **13 Academy**

*5 Elementary Consultants
*2 Middle School Consultants

G/T ADVISORY COUNCIL MEMBERS 1992-93

LAST NAME	FIRST NA	ADDRESS	CITY	ST	ZIP	REPRESENTS	HOME P	BUSINE	SCHOOL INVOI
SEITZ	SUE	2000 FINANCIAL CE	DES MOINE	IA	50309	COMMUNITY		243-7100	
SMITH	BEV	2839 RIDGE ROAD	DES MOINE	IA	50312	DM COUNCIL-PTA, PR	243-4122		
HEAPS-NELS	MARILYN	4322 ALLISON	DES MOINE	IA	50310	DMTAG	279-5024		ROOSEVELT
GANDY	RALPH	1876 SE PARK AVE	DES MOINE	IA	50320	DMTAG	282-7273		STUDEBAKER/W
HARDY	KAY	5304 SHRIVER	DES MOINE	IA	50312	JUNIOR LEAGUE	255-1911		HANAWALT/MEF
HUEHN	KEN	1302 SW 3RD ST	ANKENY	IA	50021	MENSA	964-2891		
CHAU	CHAU TAI	2917 6TH AVE	DES MOINE	IA	50313	PARENTS	282-4128		OAK PARK
WILLIAMS	DARLENE	734 CHEROKEE	DES MOINE	IA	50316	PARENTS	262-9048		HARDING
MURCHISON	MARY JAN	4055 SE INDIANOLA	DES MOINE	IA	50320	PARENTS	285-0565		WEEKS/LINCOLN
KESSEL	RALPH	427 SE WILMERS	DES MOINE	IA	50315	PARENTS	287-2110		LINCOLN
ROSS	TOM	4507 WAKONDA PK	DES MOINE	IA	50315	PARENTS			JEFFERSON
JARASVIROJ	TUKIE	901 64th	DES MOINE	IA	50312	PARENTS			MERRILL/ROOSE
WHITE	ZENOBIA	1518 BEAVER AVE	DES MOINE	IA	50310	PARENTS	280-7525	280-6575	EDMUNDS
BURGETT	STEPHEN	HOWE SCHOOL				PRIN-ELEM		244-8161	
HYDE	BETTY JEA	HOYT				PRIN-MIDDLE		2265-739:	
RAMSEY	FAE	EAST HIGH SCHOO				VP-HIGH SCHOOL		242-7788	
ALLEN	ANITA	EDMUNDS				SCHOOLS-ELEM	961-4141	243-1174	
CAMPBELL	CRAIG	MCKEE SCHOOL				SCHOOLS-ELEM		266-3423	
HARTMAN	ELLEN	LUCAS SCHOOL				SCHOOLS-ELEM		266-5079	
MEHL	MARGARE	111 35TH ST	DES MOINE	IA	50312	COMMUNITY	279-6459	263-2868	
STROOPE	ANNIKA	4235 E MADISON	DES MOINE	IA	50317	STUDENT	266-1376		
SMITH	JEFF	2839 RIDGE RD	DES MOINE	IA	50312	STUDENT	243-4122		

DECENTRALIZED FUNDS ALLOCATIONS - 1992-93

LEV	SCHOOL	SCH NO	ENROLLM	BASE AM	PRO RATE AM	TOTAL
S	EAST	109	1748	$3000.00	$1798.00	$4798.00
S	HOOVER	114	993	$3000.00	$1021.00	$4021.00
S	LINCOLN	118	1988	$3000.00	$2045.00	$5045.00
S	NORTH	127	1155	$3000.00	$1188.00	$4188.00
S	ROOSEVELT	136	1407	$3000.00	$1447.00	$4447.00
S	ALT HS NO	194	247	$500.00		$500.00
S	ALT HS SO	196	364	$500.00		$500.00
M	BRODY	205	728	$500.00	$374.00	$874.00
M	CALLANAN	209	685	$500.00	$352.00	$852.00
M	GOODRELL	227	729	$500.00	$375.00	$875.00
M	HARDING	236	820	$500.00	$421.00	$921.00
M	HIATT	245	498	$500.00	$256.00	$756.00
M	HOYT	250	654	$500.00	$336.00	$836.00
M	MCCOMBS	266	612	$500.00	$314.00	$814.00
M	MEREDITH	269	749	$500.00	$385.00	$885.00
M	MERRILL	272	599	$500.00	$308.00	$808.00
M	WEEKS	281	737	$500.00	$379.00	$879.00
E	ADAMS	409	386	$300.00	$162.00	$462.00
E	BROOKS	427	323	$300.00	$135.00	$435.00
E	CATTELL	445	396	$300.00	$166.00	$466.00
E	DOUGLAS	472	500	$300.00	$209.00	$509.00
E	EDMUNDS	490	379	$300.00	$159.00	$459.00
E	FINDLEY	503	376	$300.00	$157.00	$457.00
E	GARTON	526	379	$300.00	$159.00	$459.00
E	GRANGER	535	388	$300.00	$162.00	$462.00
E	GREENWOOD	553	471	$300.00	$197.00	$497.00
E	HANAWALT	562	360	$300.00	$151.00	$451.00
E	HILLIS	571	404	$300.00	$169.00	$469.00
E	HOWE	589	300	$300.00	$126.00	$426.00
E	HUBBELL	598	405	$300.00	$170.00	$470.00
E	JACKSON	607	451	$300.00	$189.00	$489.00
E	JEFFERSON	616	469	$300.00	$196.00	$496.00
E	KING	260	305	$300.00	$128.00	$428.00
E	LONGFELLOV	643	255	$300.00	$107.00	$407.00
E	LOVEJOY	647	344	$300.00	$144.00	$444.00
E	LUCAS	652	394	$300.00	$165.00	$465.00
E	MADISON	661	335	$300.00	$140.00	$440.00
E	MANN	670	282	$300.00	$118.00	$418.00
E	MCKEE	688	334	$300.00	$140.00	$440.00
E	MCKINLEY	697	257	$300.00	$108.00	$408.00
E	MITCHELL	706	259	$300.00	$108.00	$408.00
E	MONROE	715	317	$300.00	$133.00	$433.00
E	MOORE	724	433	$300.00	$181.00	$481.00
E	MOULTON	733	411	$300.00	$172.00	$472.00
E	OAK PARK	751	398	$300.00	$167.00	$467.00

DECENTRALIZED FUNDS ALLOCATIONS - 1992-93

LEV	SCHOOL	SCH NO	ENROLLM	BASE AM	PRO RATE AM	TOTAL
E	PARK AVENU	760	654	$300.00	$274.00	$574.00
E	PERKINS	769	293	$300.00	$123.00	$423.00
E	PHILLIPS	778	389	$300.00	$163.00	$463.00
E	PLEASANT H	782	311	$300.00	$130.00	$430.00
E	RICE	787	365	$300.00	$153.00	$453.00
E	STOWE	859	416	$300.00	$174.00	$474.00
E	STUDEBAKEI	863	455	$300.00	$191.00	$491.00
E	WALLACE	868	307	$300.00	$129.00	$429.00
E	WATROUS	886	339	$300.00	$142.00	$442.00
E	WILLARD	904	425	$300.00	$178.00	$478.00
E	WINDSOR	913	418	$300.00	$175.00	$475.00
E	WOODLAWN	922	477	$300.00	$200.00	$500.00
E	WRIGHT	931	335	$300.00	$140.00	$440.00
					$17489.00	$50789.00

Central Academy Curriculum

ENGLISH

Academy English 8 - Combination of 8th and 9th language Arts curricula including some 10th grade speech objectives. Units include study skills, vocabulary expansion, grammar and mechanics, creative and academic writing, drama, poetry, and the novel. Texts used include: Building English Skills, Level 9, McDougal - Littel, 1989; The Miracle Worker; A Midsummer Night's Dream; and Fahrenheit 451.

Academy English 9 - This course continues the curricula combining 9th and 10th grade language arts and speech objectives. Units include short story, Chinese literature, mythology, parliamentary procedure, novel, and drama. Texts include: Exploring Communication, Prentice Hall, 1984, , Understanding Literature, Macmillan, 1984, World Mythology, National, 1986; The Odyssey; Hiroshima; Great Expectations; and Romeo and Juliet.

Academy English 10 - The course is a survey of American Literature emphasizing major American authors and classic works as well as representative readings from American social history. Text used include the following: McDougal, Littell, American Literature, Harcourt, Brace, English Writing and Language Skills, Javanovich.

A.P. English Language and Composition - This course is designed for students to develop individual writing styles adaptable to different occasions for writing in college. Texts include: Essay 2: Reading with the Writer's Eye, Wadsworth, 1987; and Holt, English: Writing and Skills, Complete Course, Rinehart and Winston, 1988; 1984; and Julius Caesar.

A.P. English:Literature and Composition- The literature portion of this course includes varied college level modern and traditional classic selections. Composition ranges from the imaginative and personal to the formal and objective. English and Western Literature, Scribner; and English, Heath, 1992.

SOCIAL STUDIES

American Government - This course encompasses the 12th grade national government objectives and also includes a study of state and local government. Text used include the following: Our American Government and Political System, Laidlaw,1983.

Early Civilization and Humanities - This course encompasses a survey of the stages of human history, sociology, anthropology, literature, art, music, religion to the year A.D. 1450. The course prepares students to take AP Modern European class their sophomore year. Text used include the following: World History, Prentice Hall, 1983, Center for World Religions: Buddhist Tradition, Hindu Tradition, Islamic Tradition, Christian Tradition, Jewish Tradition and Religious Expression, Argus, 1978, The Humanities, Heath, 1985, Western Civilization Vol. 1, Dushkin Publishing, 1985.

AP European History - A survey of European History since A.D. 1450, the Academy class functions at a college level. Text used include the following: A History of Western Society, McKay, Annual Editions: Western Civilization Volume II, Dushkin, Themes in Modern Social History, Carnegie - Mellon.

A. P. American History - This is a survey U. S. History course. However, A. P. students are required to study college - level primary and secondary sources. The ability to write succinct, yet carefully documented essays is a skill which students will develop in the course. College text used include the following: Enduring Vision, Boyer.

A.P. Comparative Government-This is a college level course including an intensive comparative study of the governments of Great Britain, France, the former Soviet Union, China, and Mexico. College text used: Comparative Politics: Diverse States in an Interdependent World, Harper Row.

A.P. Macroeconomics- The purpose of this college level course is to give students a thorough understanding of the principles of economics which apply to the economic system as a whole. Emphasis is placed upon economic performance measures, economic growth, inflation, unemployment, and international economics. College test includes: Economics, 6th ed, Dryden Press.

SCIENCE

Accelerated Earth Science - A high school level course taught to 8th graders. Emphasis is placed on creative thinking, problem solving, and development of scientific methods and techniques. Topics covered include geology, oceanography, meteorology, and astronomy. Text: Earth Science, Prentice Hall, 1991.

Elements of Chemistry and Physics - An accelerated course offering a combination of laboratory and classroom discussion of selected topics in physics and chemistry. This provides an introduction to AP level science courses. The district high school texts in chemistry and physics are used as a resource. Texts include: Chemistry, Herron, et al., Heath 1987, Physics:Principles and Problems, Ziterwitz, Charles Merrill, 1992.

AP Biology - This course is equivalent to a college course for Biology majors. Topics studied include biochemistry, cell biology, genetics, animals and plants, ecology, evolution, embryology, biotechnology, human systems and a vertebrate dissection. College text used: Biology, Curtis and Barnes, 1989.

A. P. Chemistry - A college freshman introductory inorganic chemistry course. Required chemistry labs with formal reports are held outside the school day. There is emphasis on mathematical treatment of chemistry principles. College text used: Chemistry: The Central Science, Brown and LeMay, Prentice Hall, 1988

AP Physics - A freshman college level course emphasizing the mathematical treatment of physical events. This is a non-calculus based physics covering topics such as kinematics, thermodynamics, wave motion, magnetism, electricity, optics, and modern physics. Trigonometry is required as a pre-requisite. Text used : College Physics, Serway and Faughn, Saunders, 1989.

MATHEMATICS

Academy Algebra - The course presents fundamental and advanced algebraic concepts with an emphasis on problem solving and the use of calculators. The use of calculators and computers for problem solving is presented with an understanding of linear programming. Texts include: Addison-Wesley Algebra, Addison Wesley 1990.

Academy Geometry - A maximum level Euclidian geometry course. It includes Geometry of polygons, circles and solids. The course covers all standard Geometry objectives plus supplemental work in computer applications, problem solving and discrete mathematics topics. Application and theory are emphasized. . Texts include: Geometry for Enjoyment & Challenge, McDougal, Littell & Company, 1984.

Academy Algebra II - This course investigates topics including polynomial factors, conic sections, complex numbers and matrices. Graphic calculators and computers are incorporated into the class activities. Text used: Algebra and Trigonometry Structure and Method, Houghton Mifflin, 1986.

Academy Trig/College Algebra - One semester of trigonometry, covering unit-circle and right-triangle trigonometry. The other semester utilizes the graphing calculator to investigate the nature and behavior of functions as a preparation for Advanced Placement Calculus. Text used: Precalculus With Unit-Circle Trigonometry, West, 1990.

Radically Accelerated Geometry - Algebra II - The beginning of a two year compacted sequence which will include Geometry, Algebra II, Trigonometry and College Algebra. High School credit granted as courses are completed. Text used include the following: Geometry for Enjoyment & Challenge, McDougal, Littell & Company, 1984; Algebra and Trigonometry Structure and Method, Houghton Mifflin, 1986.

Radically Accelerated Algebra II/Trig/College Algebra - This is the second year of two year compacted sequence. The texts used are: Algebra and Trigonometry Structure and Method, Houghton Mifflin, 1986; and Precalculus With Unit Circle Trigonometry, West, 1990.

A. P. Calculus (AB) - includes study of elementary functions, circular functions, limits, the derivative with applications, integration with applications. Text used: Calculus, Larson, Hostetler, Edwards,

A.P. Calculus (BC) - The course includes a review of all topics in Calculus AB plus vector and parametrically defined functions, vector calculus, sequence and series and elementary differential equation. This course includes a unit of finite mathematics. College text used: Calculus with Analytic Geometry, Swotowski, 1988

The 1992-93 Gifted and Talented Institute

The purpose of this program is to provide highly motivated and gifted students access to facilities, resources and a stimulating environment in which to pursue their unique or common goals. The Institute has classes in the areas of Math/Science and Humanities. Sessions will be either eight weeks or four weeks on Saturday mornings in January and February. Classes offered are:

8 Week Classes

_____ American Film Music
_____ Computer Explorations (7 weeks, Jan. 23 excluded)
_____ Creative Writing
_____ Drama
_____ Photography (2 classes)

4 Week Classes

January		February	
_____	Art	_____	Art Collage
_____	Architecture (9-12 a.m.)	_____	Logic Puzzles and Games
_____	U.F.O.'s	_____	Science Experiences
_____	Intro to Aircraft Science Maintenance & Technology (8-12 a.m.)	_____	Radio/TV (9-12 a.m.)
_____	Biotechnology		

In 1992-93 the number of students attending the Institute was 124. Students could attend 2 four-week classes, 1 four-week class or 1 eight-week class.

G/T SUMMER SCHOOL COURSES OFFERED
June 10-30, 1992
9:00-11:00 am Monday-Friday

Entering grades 1-2:

____**Explorations** - Art, science, math, literature
____**Kool-Aid-ology** -Math/measurement, economics, marketing, creating

Entering grades 1-2-3:

____**Literature and the Fine Arts**--Music, movement, art, stories, & puppetry

Entering grades 2-3:

____**Authors, Authors, Authors** - Reading, language, math, creative writing,
____**Earth Friends** - Planet earth, environment, ecology, literature
____**Earthquakes and Volcanoes** - Earth's land forms & nature's disasters
____**Logic, games and puzzles** - Learn games, invent games, original puzzles
____**Entomology** - Study insects, field trip observations, projects, related art
____**Dinosaurs** - Geologic eras, Iowa's geological history, fossils, related art
____**Art--Varied Media**

Entering grades 3-5:

____**Theater Pizazz** - Integrated drama activities, pantomime, role-playing,
____**French** - Beginning vocabulary/conversation & culture - songs, games, food
____**Japanese** " " " " "
____**Spanish** " " " " "
____**Portuguese** " " " " "
____**Creating a Musical Play** - Composing, script writing, movement

Entering grades 4-5:

____**Another Angle of Geometry** - Creating, constructing 3D mobile, puzzles
____**Art - Mixed Media** - 2 & 3 dimensional activities, art styles from 1945
____ **Fairy Tale Slide Shows** - Plots, parodies, photography, audio-experience
____**Logic, Games, and Puzzles** - Learn games, invent games, original puzzles
____**Fun with Math and Math Games** - Constructions, computers, manipulatives
____**Aerodynamics** - Kites, airplanes, rockets
____**Microbiology** - Microscopes, studying organisms, gathering samples
____**Architecture** - Styles, sketching, painting, constructing
____**Art--Drawing and Painting** - Pencil, charcoal, watercolor
____**On Line With Computers** -Stationery/T-shirt design, letter writing, cartooning
____**Fabric Art, Past & Present** - Design, color, constructing, quilting

Entering grades 5-6:

____**Commemorating Columbus** - Musical production & historical exploration
____**Hot off the Press** - Writing, interviewing, creating, publishing newspaper
____**Drama Productions**- Scripts, memorizing, propmaking, video production

Entering grades 6-7-8-9:

____**Speed Reading** - Comprehension and rate improvement
____**Argumentation and Debate:Pre-law**- Field trips, research, position paper
____**Music Theory and Composition** - Keyboards, computers and composition
____**Rocketry & Aviation** - Rocket study/design, models, aviation simulations
____**So You Want to be a Writer** - Styles of writing, poems, short stories
____**Art--Drawing and Painting** - Charcoal, watercolor (on location)
____**Photography** - Black & white, color, studio photos, outdoor & indoor
____**Moneybags** - Banking, credit, and stocks
____**On Stage** - Creative drama, writing, performing, making props
____**Paper Pleasures** - Paper making, decorating paper, paper craft
____**Art--Mixed Media**
____**Radio/T.V.**- Writing, broadcasting, studio operations, video photography
____**Elements of Probability** - Everyday statistics, T81 Graphics Calculator
____**Crafty Needles** - Graphing, drawing, needlepoint, applique, cross count

HIGH POTENTIAL STUDENTS CAN BENEFIT FROM CAMP BY:

- Learning from and working with ability level peers.
- Experiencing increased confidence in themselves.
- Being challenged beyond the classroom.
- Hands-on learning experiences in an outdoor environment.
- Real life science lessons, not just books and labs.
- Expressing themselves creatively and artistically.

Camp Counselors

Ed Pilkington – Lincoln
Director

Kari Davidson – ISU

Jerry Goodrich – East

Mary Ann Greteman – Merrill

Joie Gronert – Hiatt

Jim Langdon – Perkins

Michael Link – Central Academy

Diann Miller – Callanan

Junior Counselors

Stephanie Christensen – Roosevelt

J.C. Cochran – North

Mark Engler – Roosevelt

Ben Graeber – Roosevelt

Kelly Leichsenring – North

Sarah Lueck – Roosevelt

Joe Waller – Hoover

Amber Williams – Roosevelt

Leaders in Learning Outdoor Adventure Camp

48

the Global Community

4–H Camping Center
Madrid, Iowa

August 2 – 7, 1992

APPENDIX H

WHO?

Gifted and Talented students in Polk County entering grades 7, 8, or 9 in the fall of 1992.

The camp is limited to sixty campers on a first come, first serve basis.

WHEN?

Sunday, August 2, 3:00 P.M. through Friday, August 7, 3:00 P.M.

HOW MUCH?

$125.00 – Includes a camp photograph and camp tee-shirt. Financial aid is available upon request; information available by calling the Des Moines Schools G/T office – 242-7856.

WHERE?

4–H CAMPING CENTER NEAR MADRID, IOWA.

The Iowa 4–H Camping Center lies amid wooded hills and steep ravines on the east bank of the Des Moines River in central Iowa. The facilities include: cabins, showers, swimming pool, canoeing, teams course, rappelling tower, fishing, amphitheatre, nature center, *PLUS* sun, wind, and sky, and a thousand acres of trees laced with hiking trails.

About Our Camp:

The Outdoor Adventure Camp was developed eleven years ago with the goal to provide more relevant enrichments for the Gifted and Talented students from the central Iowa area schools.

Since its beginning, the camp has been changing—striving to be like no other camp. Some of these activities include real-life simulations, thinking skills useful for today's society, team work, as well as developing an individual's potential. Yet, we still provide common camp experiences that most people expect.

Our counselors are the best in their fields as educators. They have worked to make original activities that spark creativity and imagination. The camp's past success can be directly related to the enthusiasm of our counselors who not only act as teachers but also as mentors and friends to the campers.

This year's theme is, "the Global Community." Thanks to a thriving world economy, satellite communication, and expanding travel, exchange among countries is happening at an unparalleled pace. In the urban centers of the developing world signs of the international youth culture are almost everywhere. So enthusiastically are we swapping food, music, and fashion that a new universal lifestyle is establishing itself. At camp, activities will try to focus in on this lifestyle and how it affects teens today.

Registration Form
Due May 15, 1992

Name_____ Home Phone_____

Address_____ Work Phone_____

City_____ Zip_____ Entering grade 7 8 9

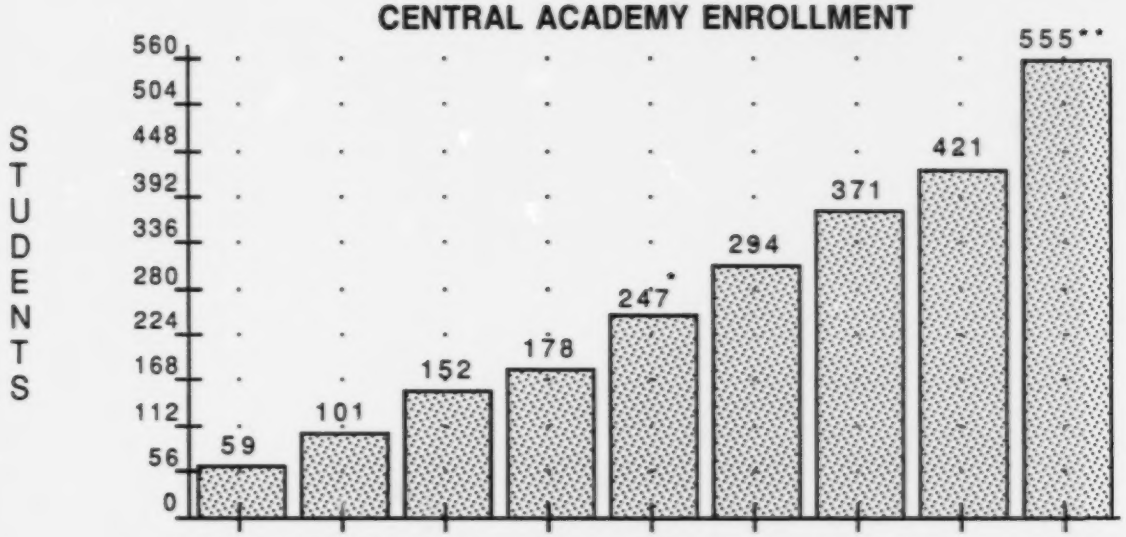
Present School_____ Male_____ Female_____

Parent Signature_____ Shirt Size: M L XL (Circle ONE)

My check for $125 is enclosed_____ ***OR*** please send a financial aid application._____

Make checks for $125.00 payable to: Des Moines Public Schools
Mail to: Gifted/Talented Education, 1800 Grand Ave., Des Moines, IA 50309
Note If registration is not received by May 15 we cannot assure a reservation.
* All cancellations after June 12 will receive half of the registration fee in refund.

CENTRAL ACADEMY ENROLLMENT



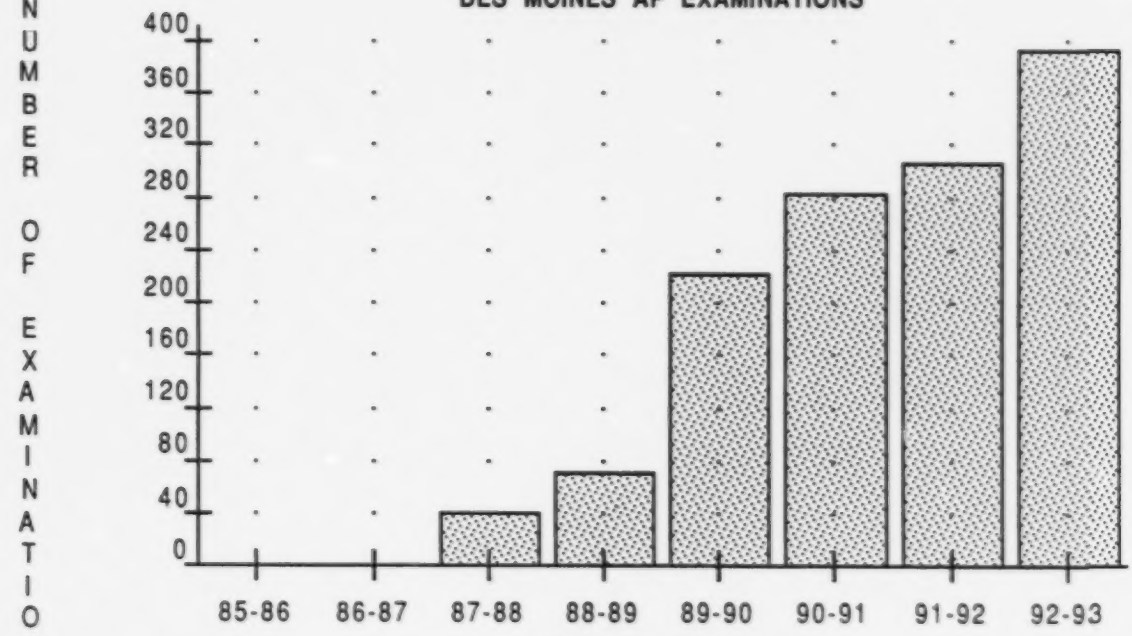
APPENDIX I CHART 1

TOTAL

*First Senior Class attending the Academy

**Currently Enrolled for Fall, 1993

DES MOINES AP EXAMINATIONS



APPENDIX I, CHART 2

AP EXAMS